Chart of Placards and Labels Used in Canada *

* DIVISIONS 1.1, 1.2 or 1.3

GUIDE 02

GUIDE 03

GUIDE 02

GUIDE 02

GUIDE 04

GUIDE 06

GUIDE 05

GUIDE 07

GUIDE 12

GUIDE 11

GUIDE 18

GUIDES 20 & 22

GUIDE 25

GUIDE 27

GUIDE 29

GUIDE 35

* The recommended guides may be used if product cannot be identified by other means.

Chart of Placards and Labels Used in Canada *

GUIDE 38

GUIDE 36

(label only)

GUIDE 43

GUIDE 44

GUIDE 38

GUIDE 49

GUIDE 49

mixed load
(placard only)

GUIDE 01

**

** SEE GLOSSARY

NOTE:
1. Placards and labels accompanying international shipments entering or leaving Canada may vary slightly in appearance.
2. In the case of multiple placarding, the placard with the class number reflects the primary hazard.
3. For further assistance call CANUTEC (613) 996-6666 collect.

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INTERNATIONAL CLASSIFICATION SYSTEM

The nine classes, their divisions where applicable and a brief description of their characteristics are listed below.

Class 1 - Explosives

1.1 - A substance or article with a mass explosion hazard.

1.2 - A substance or article with a fragment projection hazard, but not a mass explosion hazard.

1.3 - A substance or article which has a fire hazard along with either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.

1.4 - A substance or article which presents no significant hazard; explosion effects are largely confined to the package and no projection or fragments of appreciable size or range are to be expected.

1.5 - A very insensitive substance which nevertheless has a mass explosion hazard like those substances in 1.1.

1.6 - An extremely insensitive substance which does not have a mass explosion hazard.

Class 2 - Gases

2.1 - A flammable gas.

2.2 - A non-flammable, non-poisonous, non-corrosive gas.

2.3 - A poisonous gas.

2.4 - A corrosive gas.

Class 3 - Flammable Liquids

3.1 - A liquid with a closed-cup flash point of less than -18 °C.

3.2 - A liquid with a closed-cup flash point not less than -18 °C but less than 23 °C.

3.3 - A liquid with a closed-cup flash point not less than 23 °C but less than 61 °C.

Class 4 - Flammable Solids; Substances liable to spontaneous combustion; Substances that on contact with water emit flammable gases

4.1 - A solid which under normal condition of transport is readily ignitable and would burn violently or persistently or which causes or contributes to fire through friction or from heat retained from manufacturing or processing or is a self-reactive substance.

4.2 - A substance liable to spontaneous combustion under normal condition of transport, or when in contact with air, liable to spontaneous heating to the point where it ignites.

4.3 - A substance that, on contact with water emits dangerous quantities of flammable gases or becomes spontaneously combustible on contact with water or water vapour.

Class 5 - Oxidizing Substances and Organic Peroxides

5.1 - A substance which causes or contributes to the combustion of other material by yielding oxygen or other oxidizing substances whether or not the substance itself is combustible.

5.2 - An organic compound that contains the bivalent "-0-0-" structure which is a strong oxidizing agent and may be liable to explosive decomposition or is sensitive to heat, shock or friction.

Class 6 - Poisonous Substances and Infectious Substances

6.1 - A solid or liquid that is poisonous through inhalation of its vapours, by skin contact or by ingestion.

6.2 - Organisms that are infectious or that are reasonably believed to be infectious to humans or to animals.

Class 7 - Radioactive Materials

Radioactive materials within the meaning of the Atomic Energy Control Act with activity greater than 74 kBq/kg.

Class 8 - Corrosive Substances

A substance that causes visible necrosis of skin or corrodes steel or non-clad aluminum.

Class 9 - Miscellaneous Products or Substances

9.1 - Miscellaneous Dangerous Goods; a substance or product presenting dangers sufficient to warrant regulation in transport but which cannot be ascribed to any other class.

9.2 - An environmentally hazardous substance.

9.3 - A dangerous waste.

I - Product Identification and Location of the Appropriate Guide

A. If shipping documents are available:

Shipping documents containing the shipping name or 4-digit Product Identification Number (PIN) can usually be found in the

a) cab of a motor vehicle;

b) possession of the train conductor or designated crew member;

c) possession of the master of the vessel or designated crew member;

d) possession of the aircraft pilot; or

e) possession of the warehouse or terminal dispatcher or in a rail yard office, harbour master's office or airport cargo offices.

Route - Acheminement

No du wagon, de la remorque ou du conteneur

PACKAGES COLIS	DESCRIPTION OF ARTICLES AND SPECIAL MARKS DESCRIPTION DES ARTICLES ET MARQUES SPÉCIALES	Mass (subject to correction) Masse (sujette à rectification)	RATE TARIF	Transportation Charges Frais de transport
10	Chlorine UN1017 Class 2.4	10 000 kg		

The appropriate guide can be identified:

- by consulting the Alphabetical Index
  e.g. Chlorine → **GUIDE 12**

or

- by consulting the Numerical Index
  e.g. UN 1017 → **GUIDE 12**

B. If shipping documents are not available:

The 4-digit PIN may be shown on the diamond-shaped placard or on an adjacent orange panel displayed on the ends and sides of a tank, vehicle, rail car, etc. This does not apply to explosives in which case guide 02 or 03 should be consulted.

or

The appropriate guide can be identified:

- by consulting the Numerical Index
  e.g. 1017 → **GUIDE 12**

NOTE: The PIN may not be required to be displayed on railway vehicles for some specific products.

C. If neither the shipping name nor the PIN is available:

The placard on the tank, vehicle, rail car, etc., or the label on the package can be matched with the placards or labels illustrated on the front inside cover of this book, then the suggested guide can be consulted. The recommendation presented may be more general than the information provided in the material's specific guide page but will nonetheless suggest satisfactory emergency response advice.

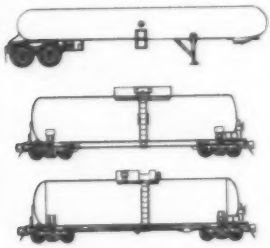
e.g.

→ **GUIDE 12**

D. If product cannot be identified by shipping name, PIN or placard/label:

(i) **For bulk shipments**

The shape of the rail car or road trailer can be matched with one of the shapes illustrated on the back inside cover of this book, then the suggested guide(s) can be consulted.



→ **GUIDES 05 and 12**

→ **GUIDE 18**

(ii) **Unidentified packages or cargoes only** → **GUIDE 01**

NOTE: The product may also be identified by contacting **CANUTEC** if any of the following information is available:

Flight no. (Air)
Call sign (Marine)
Reporting marks and car no. (Rail)
Carrier and truck/trailer no. (Road)
Carrier and licence plate no. (Road)

II - Effectively Consulting the Appropriate Guide

The guide pages have titles identifying the general hazards of the dangerous goods covered. These will provide you with immediate information regarding the general properties of the substances involved in the incident.

Each guide page is further sub-divided into three main sections; the first section describes potential hazards that the product may display in terms of fire/explosion and potential health effects upon exposure. The emergency responder's first step is to consult this section since it will indicate in very brief form the dangers the product may present. This will allow the responder to make decisions regarding the protection of the emergency response team members as well as the surrounding population.

The second section outlines suggested public safety measures to take according to the situation at hand. It will provide general information regarding isolation of the incident site, the recommended level of protective clothing and respiratory protection. Suggested evacuation distances are then listed for small and large spills or for fire situations. We strongly recommend that contact with **CANUTEC** be established in order to obtain specific and detailed information regarding the product involved, protective equipment compatibility and appropriate evacuation distances.

The third section covers emergency response action and outlines special precautions to follow for incidents which involve fire, spill or chemical exposure situations. Several recommendations are listed under each part which will assist in your decision making process. Please remember that additional assistance can be obtained from **CANUTEC at any time**.

NOTE: The titles at the top of the guide pages do not necessarily reflect the product classification under the *Transportation of Dangerous Goods Regulations*.

For general questions regarding **CANUTEC** or this Guide in non-emergency situations please call **CANUTEC** collect on the information line (613) 992-4624 (24 hours).

III - For More Detailed Information and/or Assistance, Call CANUTEC collect at (613) 996-6666 (24 hours).

FIVE STEPS TO EMERGENCY RESPONSE

The following are recommended steps to take when dealing with a dangerous goods emergency situation:

Secure the area:

Establish a hazard zone that will keep non-emergency response personnel well out of danger. It may be necessary to patrol the zone to keep spectators at a safe distance.

Approach with care:

Do not rush blindly ahead as this could add your name to the list of casualties. Approach from upwind to keep from coming in contact with vapours. Keep in mind that many vapours and gases are odourless, colourless and heavier than air and hence may accumulate in low lying areas.

Identify Products:

Placards and/or labelling symbols will provide information as to the type of hazard involved. The exact identity of the products involved can be found by examining the shipping documents. Other markings such as the rail car number or vehicle licence plate number may be used to trace the shipment and determine the contents.

Assess the Situation:

The following points need to be considered:

- Is there a fire?
- Is there a spill or a leak?
- What are the weather conditions?
- What is the terrain like?
- What is at risk: people, property or the environment?
- What should be done: is an evacuation necessary? Is diking necessary? What resources (human and equipment) are required and which are readily available?
- What can be done right away?

Respond:

Respond in an appropriate manner. Establish a command post and establish lines of communication. Rescue casualties where possible and evacuate if necessary. Maintain control of the site. Continually reassess the situation and modify the response accordingly. The first duty is to consider the safety of those people in the immediate area, including your own safety.

The **Dangerous Goods Initial Emergency Response Guide** has been developed by Transport Canada in an effort to promote public safety in the transportation of dangerous goods. The **CANUTEC** Emergency Response Advisors have reviewed each chemical entry for accuracy of technical information and for appropriate recommended emergency response handling procedures. This revision has resulted in the incorporation of several chemical entries from recent United Nations dangerous goods lists as well as from other international regulations. In addition, several new guide pages appear in this 1992 edition which provide more chemical specific response information than in previous editions.

The purpose of this Emergency Response Guide is to provide general information and advice to persons handling dangerous goods emergency situations. This book is not a substitute for emergency response training, experience and sound judgement but if used properly it will facilitate the emergency response process and help prevent an accident from becoming a catastrophe. The responders must remember that one guide page can represent dozens of chemicals with slightly varying physical and chemical properties and hence one's judgement will play a key role in the emergency response process. **CANUTEC** can also assist the first responder by providing product specific information from its data banks or from manufacturer's Material Safety Data Sheets. This information is available 24 h a day by calling (613)996-6666 collect.

It is important to be aware of some of the features or approaches used in this book. For the sake of brevity, the chemical entries which appear in the indices are not necessarily identical to the same entries in the *Transportation of Dangerous Goods Regulations* (TDG Regulations) Lists; for example, concentration values may not appear in entries in the indices. Also, the class and division prescribed by the Regulations and depicted on the placards may not necessarily reflect all the potential hazards that should be considered in an emergency. For example, some substances are not classified by the Regulations as class 4.3 (water reactive) but they, nevertheless, react with water to produce gases and other substances which are poisonous or corrosive, therefore some guide pages incorporate groups of substances with different classifications but which present similar hazards when involved in accidents.

Explosives are not listed individually either by shipping name or PIN. They do, however, appear under the general heading "Explosives" in the Alphabetical Index.

Some substances may behave or decompose explosively under high temperature conditions and are identified with the letter **E** in both the Alphabetical Index and the Numerical Index (i.e. Crotonylene; guide page 14**E**). In addition, some substances which may polymerize violently under certain conditions are identified with the letter **P** in the Index lists (i.e. Acrolein, inhibited; guide page 16**P**). More detailed information on these substances can be obtained by consulting the Glossary at the end of this Guide under the letter **E** and **P**.

When using this Guide at an accident involving a mixed shipment, the emergency response should be for the most hazardous of the dangerous goods in the shipment. Caution should be exercised as products of an intermixing reaction may be more hazardous than the original substances. Additional information on chemical incompatibility may be obtained from **CANUTEC**.

Protective Clothing
Many different types of protective clothing are available and it is strongly recommended that the emergency responder consult with either the manufacturer of the protective clothing or **CANUTEC** in order to ensure required levels of protection are met.

Evacuation
Evacuation distances have been provided in the guide, however, considerable judgement is still required on the part of the first responder. **It is important to consider the evacuation advice as guidelines only for initial evacuation**, since a number of other factors have to be considered before deciding the extent of evacuation of the area. These factors include population at risk, product quantities, product properties, time of year, local weather conditions, terrain, etc. It is therefore important to make a decision based on the circumstances of the incident and sound information since, under certain conditions, an evacuation can result in considerable human suffering. **CANUTEC** may be consulted at any time for assistance in these matters.

Fire Fighting
While a number of different types of foam are commercially available for fighting chemical fires, only two types of fire fighting foam are considered in this book: "regular" foam, such as AFFF or protein foam and "alcohol" foam i.e., alcohol resistant foam. "Alcohol" foam is recommended for some water miscible and some immiscible flammable liquids which tend to break down other foams. In cases where a doubt exists as to the requirement for or efficiency of "alcohol" foam, "regular" foam is recommended. This is not meant to imply that the use of "alcohol" foam is inappropriate in these cases. Conversely, if "Alcohol" foam is recommended but not available, "Regular" foam may be applied. (Larger quantities may have to be applied to achieve fire extinction). The final judgement for the use of any extinguishant rests with the firefighters at the scene.

First Aid
Under "First Aid" in the guides, there is a general reference to seeking medical care. It is difficult to be more specific about the kind of professional medical assistance that should be sought since the extent of exposure, the chemical(s) involved, the extent and nature of the injuries, the remoteness of the accident site to medical services in general or emergency services in particular and other factors may vary considerably. When human exposure has occurred, immediate efforts should be made to remove all contaminated clothing and shoes, and to obtain local medical assistance to evaluate the extent of injuries and determine whether treatment or hospitalization is

advisable. On-site medical care may also be provided by qualified personnel such as paramedics.

Efficient Management of an Emergency

In order to manage a chemical emergency effectively, many different questions need to be addressed by the first responder. The following are some points to consider when at an accident site involving dangerous goods:

a) Identify the products involved using shipping documents, or at least identify the hazard from the placards.

b) Minimize exposure to chemicals by working upwind, wear appropriate protective clothing and avoid inhalation of gases, fumes, and smoke.

c) Use the physical and chemical property information to make judgements on response and evacuation. **CANUTEC** will provide assistance at all times for this type of information.

d) Many harmful chemicals lack colour or offensive odours, therefore do not assume they are harmless.

e) Remember that relatively light gases, when cold, may be initially heavier than air.

f) Decontaminate equipment, clothing and personnel, including the victim(s), on-site. (Please consult the Glossary for information sources on decontamination methods)

g) Dispose of contaminated equipment under supervision of a specialist.

h) If human exposure has occurred, alert local emergency health professionals as soon as possible.

This book will be revised periodically and persons wishing to comment or submit suggestions concerning the format or content should write to:

Chief, **CANUTEC**
Regulatory Affairs
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario
K1A 0N5
Tel: (613) 992-4624 (information)
Fax: (613) 954-5101

CANUTEC

CANUTEC is the **Canadian Transport Emergency Centre.** It is located in Ottawa and is operated by the Transport Dangerous Goods Directorate of Transport Canada.

CANUTEC provides a national bilingual advisory service and is staffed by professional chemists experienced and trained in interpreting technical information and providing emergency response advice.

In an emergency, CANUTEC may be called collect at (613) 996-6666 (24 hours)

In a non-emergency situation please call the information line at (613) 992-4624 (24 hours).

When an emergency call is received by **CANUTEC**, the Emergency Response Advisor obtains relevant information about the emergency and recommends appropriate response actions for the protection of the public and for the stabilization and containment of the dangerous goods involved. The advisor provides technical information regarding the physical, chemical, toxicological and other properties of the products involved; recommends remedial actions for fires, spills or leaks; provides advice on protective clothing and first aid; and contacts the shipper, manufacturer or any other organization the caller requests or the advisor deems necessary. Every effort should be made by emergency response personnel to maintain an open telephone line to ensure prompt communication with the site. If desireable and possible, **CANUTEC** will establish communication links on behalf of the site command and provide french/english translation if required.

When communicating with **CANUTEC** it is very helpful if the following is available:

- The correct spelling of the product is paramount to proper identification, for example;

  Ammonium sulphide: poisonous, flammable and corrosive

  Ammonium sulphite: mild corrosive

- The complete name of the product is also essential for product identification, for example;

  Acetone: flammable

  Acetone cyanohydrin: flammable and poisonous

Other helpful information required by **CANUTEC** includes:

- Caller's name/organization
- Call back number/location
- Shipping name
- PIN
- Incident details
- Type of vehicle/packaging
- Number of injuries/deaths
- Time of occurrence
- Emergency location
- Terrain/weather conditions
- Help on site/requested
- Shipper/origin
- Manufacturer
- Carrier
- Consignee/destination
- Call sign/car/tractor/trailer/flight number
- Bill of lading/waybill number

For more information on CANUTEC's services, write to:

Chief, CANUTEC
Regulatory Affairs
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario
K1A 0N5
Tel:(613)992-4624 (Information)
Fax: (613) 954-5101

FOR ASSISTANCE WHEN INVOLVED IN A DANGEROUS GOODS EMERGENCY IN THE UNITED STATES

CANUTEC may be contacted at any time by calling collect the (613) 996-6666 emergency telephone number. **CHEMTREC** may also be contacted by calling 1-800-424-9300 (483-7616 District of Columbia).

CHEMTREC is a service provided by the Chemical Manufacturer's Association (CMA) and both **CANUTEC** and **CHEMTREC** organizations will assist each other in providing quickly and efficiently the required information to emergency responders.

PHONETIC ALPHABET

The following phonetic alphabet may be used when communicating with CANUTEC to ensure accurate spelling of product name(s).

A Alfa	N November
B Bravo	O Oscar
C Charlie	P Papa
D Delta	Q Quebec
E Echo	R Romeo
F Foxtrot	S Sierra
G Golf	T Tango
H Hotel	U Uniform
I India	V Victor
J Juliet	W Whisky
K Kilo	X X-Ray
L Lima	Y Yankee
M Mike	Z Zulu

Example

Ethyl mercaptan would be spelled out in the following manner:

E Echo	**M** Mike
T Tango	**E** Echo
H Hotel	**R** Romeo
Y Yankee	**C** Charlie
L Lima	**A** Alfa
	P Papa
	T Tango
	A Alfa
	N November

REMINDER

Although technical information and emergency response assistance can be obtained from **CANUTEC**, there are federal and provincial regulations requiring the reporting of dangerous goods accidents to certain authorities.

The following list of provincial agencies is supplied for your convenience. The telephone numbers for the National Response Centre are also provided in case of accident in the United States.

Province	Emergency Authority or Telephone Number
Alberta	Local police
British Columbia	Local police or (604) 387-5956
Manitoba	Local police or fire brigade, as appropriate, or (204) 945-4888
New Brunswick	Local police or 1-800-565-1633*
Newfoundland	Local police or (709) 772-2083
Northwest Territories	(403) 920-8130
Nova Scotia	Local police or 1-800-565-1633* or (902) 426-6030
Ontario	Local police
Prince Edward Island	Local police or 1-800-565-1633*
Quebec	Local police
Saskatchewan	Local police or 1-800-667-7525
Yukon Territory	(403) 667-7244
United States (National Response Centre)	1-800-424-8802 ** or (202) 267-2675 (Washington, D.C. calling area)

* This number is not accessible from outside the provinces of New Brunswick, Nova Scotia or Prince Edward Island.

** This number is not accessible from outside the United States.

NOTE:

1. The appropriate federal agency must be notified in the case of rail, air or marine accidents.
2. The nearest police department must be notified in the case of lost, stolen or misplaced explosives, radioactive materials or infectious substances.
3. **CANUTEC must** be notified in the case of:
   a. lost, stolen or misplaced infectious substances;
   b. an accident involving infectious substances or radioactive materials; or
   c. an accident where the shipping documents display **CANUTEC's** telephone number (613)996-6666 as the emergency telephone number.

Accumulators, pressurized	06	NA1956
Acetal	14	UN1088
Acetaldehyde	18	UN1089
Acetaldehyde ammonia	20	UN1841
Acetaldehyde oxime	19	UN2332
Acetic acid, glacial	19	UN2789
Acetic acid solution	38	UN2790
Acetic acid solution, *with more than 10 per cent but not more than 80 per cent acid, by mass*	38	UN2790
Acetic acid solution, *with more than 80 per cent acid, by mass*	19	UN2789
Acetic anhydride	40	UN1715
Acetone	14	UN1090
Acetone cyanohydrin, stabilized	40	UN1541
Acetone oils	14	UN1091
Acetonitrile	17	UN1648
Acetyl acetone peroxide	32	UN2080
Acetyl acetone peroxide	32	UN3061
Acetyl benzoyl peroxide	34	UN2081
Acetyl bromide	41	UN1716
Acetyl chloride	40	UN1717
Acetyl cyclohexanesulphonyl peroxide	35	UN2082
Acetyl cyclohexanesulphonyl peroxide	35	UN2083
Acetylene *or* Acetylene, dissolved	04E	UN1001
Acetylene tetrabromide	36	UN2504
Acetyl iodide	41	UN1898
Acetyl methyl carbinol	15P	UN2621
Acetyl peroxide	35	UN2084
Acid, sludge	38	UN1906
Acid butyl phosphate	38	UN1718
Acridine	38	UN2713
Acrolein, inhibited	18P	UN1092
Acrolein dimer, stabilized	19P	UN2607
Acrylamide	38P	UN2074
Acrylic acid, inhibited	19P	UN2218
Acrylonitrile, inhibited	16P	UN1093
Adhesives, *containing flammable liquid*	14	UN1133
Adipic acid	38	NA9077
Adiponitrile	38	UN2205
Aerosols	12	UN1950
Air, compressed	10	UN1002
Air, refrigerated, liquid, non-pressurized	10	UN1003
Aircraft hydraulic power unit fuel tank	18	NA9001
Aircraft hydraulic power unit fuel tank	18	UN3165
Aircraft thrust device for assisted take-off	20	UN2791
Alcoholic beverages	14	UN3065
Alcohols, n.o.s.	14	UN1987
Alcohols, toxic, n.o.s.	16	UN1986
Aldehydes, n.o.s.	18	UN1989
Aldehydes, toxic, n.o.s.	16	UN1988
Aldol	38	UN2839
Aldrin	36	NA2761
Aldrin, cast solid	36	NA2761
Aldrin mixture, dry	36	NA2761
Aldrin mixture, liquid	18	NA2762
Alkali metal alcoholates, n.o.s.	40	UN3206
Alkali metal alloys, liquid, n.o.s.	26	UN1421
Alkali metal amalgams, n.o.s.	26	UN1389
Alkali metal amides, n.o.s.	27	UN1390
Alkali metal dispersions, n.o.s.	26	UN1391
Alkaline earth metal alcoholates, n.o.s.	40	UN3205
Alkaline earth metal alloys, n.o.s.	26	UN1393

Alkaline earth metal amalgams, n.o.s.	26	UN1392
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Alkaloids, liquid, n.o.s., poisonous	36	UN3140
Alkaloids, solid, n.o.s., *poisonous*	36	UN1544
Alkaloid salts, solid, n.o.s., *poisonous*	36	UN1544
Alkaloid salts, liquid, n.o.s., poisonous	36	UN3140
Alkylamines, n.o.s.	18	UN2733
Alkylamines, n.o.s.	18	UN2734
Alkylamines, n.o.s.	38	UN2735
Alkyl phenols, n.o.s.	38	UN2430
Alkyl phenols, liquid, n.o.s.	38	UN3145
Alkyl phenols, solid, n.o.s.	38	UN2430
Alkyl sulphonic acid, liquid *with more than 5% free sulphuric acid*	38	UN2584
Alkyl sulphonic acid, liquid *with not more than 5% free sulphuric acid*	38	UN2586
Alkyl sulphonic acid, solid *with more than 5% free sulphuric acid*	38	UN2583
Alkyl sulphonic acid, solid *with not more than 5% free sulphuric acid*	38	UN2585
Allene	04P	UN2200
Allethrin	36	NA2902
Allyl acetate	19	UN2333
Allyl alcohol	17	UN1098
Allylamine	18	UN2334
Allyl bromide	19	UN1099
Allyl chloride	18	UN1100
Allyl chlorocarbonate	40	UN1722
Allyl chloroformate	40	UN1722
Allyl ethyl ether	16	UN2335
Allyl formate	18	UN2336
Allyl glycidyl ether	17	UN2219
Allyl iodide	19	UN1723
Allyl isothiocyanate, inhibited	40	UN1545
Allyltrichlorosilane, stabilized	40E	UN1724
Aluminum alkyl halides	25	UN3052
Aluminum alkyl hydrides	26	UN3076
Aluminum alkyls	25	UN3051
Aluminum borohydride	25	UN2870
Aluminum borohydride in devices	25	UN2870
Aluminum borohydride in devices *or* products	25	UN2870
Aluminum bromide, anhydrous	42	UN1725
Aluminum bromide, solution	39	UN2580
Aluminum carbide	26	UN1394
Aluminum chloride, anhydrous	42	UN1726
Aluminum chloride, solution	39	UN2581
Aluminum dross	26	UN3170
Aluminum ferrosilicon powder	27	UN1395
Aluminum hydride	26	UN2463
Aluminum nitrate	29	UN1438
Aluminum phosphate, solution	39	NA1760
Aluminum phosphide	27	UN1397
Aluminum phosphide pesticides	27	UN3048
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Aluminum sulphate, solution	39	NA1760

2-Amino-4-chlorophenol	36	UN2673
2-Amino-5-diethylaminopentane	38	UN2946
2-(2-Aminoethoxy) ethanol	38	UN3055
N-Aminoethylpiperazine	38	UN2815
Aminophenols	37	UN2512
Aminopropyldiethanolamine	38	NA1760
N-Aminopropylmorpholine	38	NA1760
Aminopyridines	38	UN2671
Ammonia anhydrous, liquefied	07	UN1005
Ammonia solutions *with more than 50 per cent ammonia*	07	UN1005
Ammonia solutions *with more than 10 per cent but not more than 35 per cent ammonia*	39	UN2672
Ammonia solutions *with more than 35 per cent but not more than 50 per cent ammonia*	07	UN2073
Ammonium acetate	49	NA9079
Ammonium arsenate	36	UN1546
Ammonium benzoate	49	NA9080
Ammonium bicarbonate	49	NA9081
Ammonium bifluoride, solid	39	UN1727
Ammonium bifluoride, solution	39	UN2817
Ammonium bisulphate	39	UN2506
Ammonium bisulphite, solid	39	NA2693
Ammonium bisulphite, solution	39	NA2693
Ammonium carbamate	39	NA9083
Ammonium carbonate	39	NA9084
Ammonium chloride	49	NA9085
Ammonium chromate	31	NA9086
Ammonium citrate, dibasic	49	NA9087
Ammonium dichromate	30	UN1439
Ammonium dinitro-o-cresolate	29	UN1843
Ammonium fluoborate	39	NA9088
Ammonium fluoride	39	UN2505
Ammonium fluorosilicate	39	UN2854
Ammonium hydrogen fluoride, solid	39	UN1727
Ammonium hydrogen fluoride, solution	39	UN2817
Ammonium hydrogen sulphate	39	UN2506
Ammonium hydrosulphide, solution	19	NA2683
Ammonium hydroxide *with more than 10 per cent but not more than 35 per cent ammonia*	39	UN2672
Ammonium hydroxide *with more than 35 per cent but not more than 50 per cent ammonia*	07	UN2073
Ammonium metavanadate	39	UN2859
Ammonium nitrate	30	UN1942
Ammonium nitrate, liquid *(hot concentrated solution)*	30	UN2426
Ammonium nitrate fertilizers	30	NA1942
Ammonium nitrate fertilizers	30	UN2067
Ammonium nitrate fertilizers	30	UN2068
Ammonium nitrate fertilizers	30	UN2069
Ammonium nitrate fertilizers	30	UN2070
Ammonium nitrate fertilizers	29	UN2071
Ammonium nitrate fertilizers, n.o.s. *solid*	30	UN2072
Ammonium oxalate	39	NA2449
Ammonium perchlorate	30	UN1442
Ammonium permanganate	31	NA9190

Ammonium persulphate	29	UN1444
Ammonium picrate, wetted	02	UN1310
Ammonium polysulphide, solution	39	UN2818
Ammonium polyvanadate	36	UN2861
Ammonium silicofluoride	39	UN2854
Ammonium sulphamate	49	NA9089
Ammonium sulphide, solution	19	UN2683
Ammonium sulphite	49	NA9090
Ammonium tartrate	49	NA9091
Ammonium thiocyanate	49	NA9092
Ammonium thiosulphate	49	NA9093
Ammunition, tear-producing, non-explosive	38	UN2017
Ammunition, toxic, non-explosive	39	UN2016
Amyl acetates	18	UN1104
Amyl acid phosphate	38	UN2819
Amyl alcohols	16	UN1105
Amylamine	18	UN1106
Amyl butyrates	19	UN2620
Amyl chloride	18	UN1107
n-Amylene	14	UN1108
Amyl formates	18	UN1109
tert-Amyl hydroperoxide	34	UN3067
Amyl mercaptan	16	UN1111
Amyl methyl ketone	15	UN1110
Amyl nitrate	29	UN1112
Amyl nitrite	16	UN1113
tert-Amylperoxybenzoate	32	UN3044
tert-Amyl peroxy-2-ethylhexanoate	35	UN2898
tert-Amyl peroxyneodecanoate	35	UN2891
tert-Amyl peroxypivalate	35	UN2957
Amyltrichlorosilane	40	UN1728

Anhydrous ammonia, liquefied	07	UN1005
Aniline	38	UN1547
Aniline hydrochloride	38	UN1548
Anisidines, liquid *or* solid	38	UN2431
Anisole	15	UN2222
Anisoyl chloride	41	UN1729
Antimony compounds, inorganic, n.o.s.	42	UN1549
Antimony compounds, inorganic, liquid, n.o.s.	42	UN3141
Antimony lactate	36	UN1550
Antimony pentachloride	42	UN1730
Antimony pentachloride, liquid	42	UN1730
Antimony pentachloride, solution	42	UN1731
Antimony pentafluoride	42	UN1732
Antimony potassium tartrate	36	UN1551
Antimony powder	52	UN2871
Antimony sulphide, solid	41	NA1325
Antimony tribromide, solid	42	NA1549
Antimony tribromide, solution	42	NA1549
Antimony trichloride, solid or solution	42	UN1733
Antimony trifluoride, solid	42	NA1549
Antimony trifluoride, solution	42	NA1549
Antimony trioxide	49	NA9201
Aqua regia	42	UN1798
Argon, compressed	08	UN1006
Argon, pressurized liquid	08	UN1951
Argon, refrigerated liquid	08	UN1951
Arsenates, liquid, n.o.s.	37	UN1556
Arsenates, solid, n.o.s.	37	UN1557
Arsenic	37	UN1558
Arsenic acid, liquid	39	UN1553
Arsenic acid, solid	39	UN1554
Arsenic acid, solution	39	UN1553

Arsenical dip, liquid	37	NA1557
Arsenical dust	37	UN1562
Arsenical pesticides, liquid, flammable, toxic, n.o.s.	16	UN2760
Arsenical pesticides, liquid, toxic, n.o.s.	36	UN2994
Arsenical pesticides, liquid, toxic, flammable, n.o.s.	17	UN2993
Arsenical pesticides, solid, toxic, n.o.s.	36	UN2759
Arsenic bromide	36	UN1555
Arsenic chloride	42	UN1560
Arsenic compounds, liquid, n.o.s.	37	UN1556
Arsenic compounds, solid, n.o.s.	37	UN1557
Arsenic iodide, solid	37	NA1557
Arsenic pentoxide	36	UN1559
Arsenic sulphides, liquid, n.o.s.	37	UN1556
Arsenic sulphide, solid	37	NA1557
Arsenic sulphides, solid, n.o.s.	37	UN1557
Arsenic trichloride	42	UN1560
Arsenic trioxide	36	UN1561
Arsenic trisulphide	37	NA1557
Arsenious and Mercuric iodide solution	38	NA2810
Arsenites, liquid, n.o.s.	37	UN1556
Arsenites, solid, n.o.s.	37	UN1557
Arsine	05	UN2188
Articles, pressurized pneumatic or hydraulic *(containing non-flammable gas)*	06	UN3164
Aryl sulphonic acid, liquid *with more than 5% free sulphuric acid*	38	UN2584
Aryl sulphonic acid, liquid *with not more than 5% free sulphuric acid*	38	UN2586
Aryl sulphonic acid, solid *with more than 5% free sulphuric acid*	38	UN2583
Aryl sulphonic acid, solid *with not more than 5% free sulphuric acid*	38	UN2585
Asbestos, blue *or* Asbestos, brown	49	UN2212
Asbestos, white	49	UN2590
Asphalt at or above its flash point	16	NA1999
Azinphos methyl, solid	37	NA2783
Azinphos methyl mixture, liquid	37	NA3018
Azodicarbonamide	21	UN3242
2,2'-Azodi-(2,4-dimethyl-4-methoxyvaleronitrile)	22	UN2955
2,2'-Azodi-(2,4-dimethylvaleronitrile)	22	UN2953
1,1'-Azodi-(hexahydrobenzonitrile)	21	UN2954
Azodiisobutyronitrile	22	UN2952
2,2'-Azodi-(2-methylbutyronitrile)	22	UN3030
Bags, having contained sodium nitrate, *or* potassium nitrate, empty, unwashed	20	UN1359
Barium	26	UN1400
Barium alloys	26	UN1399
Barium alloys, pyrophoric	25	UN1854
Barium azide, *wetted*	02	UN1571
Barium bromate	30	UN2719
Barium chlorate	30	UN1445
Barium chlorate solution	30	UN1445
Barium chlorate, wetted	30	UN1445
Barium compounds, n.o.s.	39	UN1564
Barium cyanide	42	UN1565
Barium hypochlorite	30	UN2741
Barium nitrate	30	UN1446

Barium oxide	42	UN1884
Barium perchlorate	30	UN1447
Barium perchlorate, solutions	30	UN1447
Barium permanganate	30	UN1448
Barium peroxide	30	UN1449
Batteries, dry, containing potassium hydroxide solid, *electric, storage*	39	UN3028
Batteries, wet, filled with acid	39	UN2794
Batteries, wet, filled with alkali	39	UN2795
Batteries, wet, non-spillable	39	UN2800
Battery fluid, acid, *or* Battery fluid, acid, with electronic equipment *or* actuating device *or* Battery fluid, acid, with battery	39	UN2796
Battery fluid, alkali *or* Battery fluid, alkali, with electronic equipment *or* actuating device *or* Battery fluid, alkali, with battery	39	UN2797
Benzaldehyde	38	NA1989
Benzene	16	UN1114
Benzene-1, 3-disulphohydrazide	21	UN2971
Benzene phosphorus dichloride	41	UN2798
Benzene phosphorus thiodichloride	41	UN2799
Benzene sulphohydrazide	21	UN2970
Benzene sulphonyl chloride	41	UN2225
Benzidine	38	UN1885
Benzoic acid	38	NA9094
Benzoic derivative pesticides liquid, flammable, toxic, n.o.s.	16	UN2770
Benzoic derivative pesticides, liquid, toxic, n.o.s.	36	UN3004
Benzoic derivative pesticides, liquid, toxic, flammable, n.o.s.	17	UN3003
Benzoic derivative pesticides, solid, toxic, n.o.s.	36	UN2769
Benzonitrile	37	UN2224
Benzoquinone	38	UN2587
Benzotrichloride	41	UN2226
Benzotrifluoride	16	UN2338
Benzoyl chloride	41	UN1736
Benzoyl peroxide	33	UN2085
Benzoyl peroxide	33	UN2087
Benzoyl peroxide	33	UN2088
Benzoyl peroxide	33	UN2089
Benzoyl peroxide	33	UN2090
Benzyl bromide	41	UN1737
Benzyl chloride	41	UN1738
Benzyl chloroformate	41	UN1739
Benzyl dimethylamine	38	UN2619
4-[Benzyl(ethyl)amino] -3-ethoxy-benzene -diazonium zinc chloride	22	UN3037
Benzylidene chloride	41	UN1886
Benzyl iodide	41	UN2653
4-[Benzyl(methyl) amino] -3-ethoxy-benzene -diazonium zinc chloride	22	UN3038
Beryllium, powder	37	UN1567
Beryllium chloride	39	NA1566
Beryllium compounds, n.o.s.	39	UN1566
Beryllium fluoride	39	NA1566
Beryllium nitrate	30	UN2464
Bhusa, hay *or* straw, *wet, damp or contaminated with oil*	20	UN1327

Bicyclo [2.2.1]hepta-2, 5-diene	14	UN2251
Bifluorides, n.o.s.	39	UN1740
Bipyridilium pesticides, liquid, flammable, toxic, n.o.s.	16	UN2782
Bipyridilium pesticides, liquid, toxic, n.o.s.	36	UN3016
Bipyridilium pesticides, liquid, toxic, flammable, n.o.s.	17	UN3015
Bipyridilium pesticides, solid, toxic, n.o.s.	36	UN2781
Bis-(aminopropyl) piperazine	38	NA1760
Bisulphites, inorganic, aqueous solutions, n.o.s.	39	UN2693
Bleaching powder	30	UN2208
Blue asbestos	49	UN2212
Bombs, smoke, non-explosive	38	UN2028
Borate and chlorate mixtures	30	UN1458
Bordeaux arsenite, liquid	36	NA2759
Bordeaux arsenite, solid	36	NA2759
Borneol	20	UN1312
Boron tribromide	42	UN2692
Boron trichloride	07	UN1741
Boron trifluoride	07	UN1008
Boron trifluoride acetic acid complex	40	UN1742
Boron trifluoride diethyl etherate	26	UN2604
Boron trifluoride dihydrate	42	UN2851
Boron trifluoride dimethyl etherate	26	UN2965
Boron trifluoride propionic acid complex	41	UN1743
Brake fluid, *hydraulic*	18	UN1118
Bromates, inorganic, n.o.s.	30	UN1450
Bromates, inorganic, aqueous solutions, n.o.s.	30	UN3213
Bromine	39	UN1744
Bromine chloride	12	UN2901
Bromine pentafluoride	28	UN1745
Bromine solutions	39	UN1744
Bromine trifluoride	28	UN1746
Bromoacetic acid	41	UN1938
Bromoacetone	18	UN1569
Bromoacetyl bromide	41	UN2513
Bromobenzene	17	UN2514
Bromobenzyl cyanides	38	UN1694
2-Bromobutane	17	UN2339
Bromochloromethane	39	UN1887
1-Bromo-3-chloropropane	36	UN2688
2-Bromoethyl ethyl ether	16	UN2340
Bromoform	39	UN2515
1-Bromo-3-methylbutane	18	UN2341
Bromomethylpropanes	19	UN2342
2-Bromo-2-nitropropane-1,3-diol	38	UN3241
2-Bromopentane	18	UN2343
2-Bromopropane	18	UN2344
3-Bromopropyne	18	UN2345
Bromotrifluoroethylene	04	UN2419
Bromotrifluoromethane	06	UN1009
Brown asbestos	49	UN2212
Brown asbestos, amosite, mysorite	49	UN2212
Brucine	37	UN1570
Butadienes, inhibited	04P	UN1010
Butane	04	UN1011
Butanedione	14	UN2346
Butane mixtures	04	UN1011
Butanols	16	UN1120
Butoxyl	15	UN2708
Butyl acetates	18	UN1123
Butyl acid phosphate	38	UN1718
Butyl acrylate, inhibited	19P	UN2348
n-Butylamine	19	UN1125
N-Butylaniline	38	UN2738

Butyl benzenes	15	UN2709
n-Butyl bromide	16	UN1126
Butyl chloride	18	UN1127
n-Butylchloroformate	41	UN2743
sec-Butylchloroformate	41	NA2742
tert-Butyl cumyl peroxide	32	UN2091
tert-Butylcyclohexyl-chloroformate	41	UN2747
n-Butyl-4,4-di-(tert-butylperoxy) valerate	32	UN2140
n-Butyl-4,4-di-(tert-butylperoxy) valerate	32	UN2141
Butylene	04	UN1012
1,2-Butyleneoxide, stabilized	14P	UN3022
Butyl ethers	15	UN1149
n-Butyl formate *or* Butyl formate	18	UN1128
tert-Butyl hydroperoxide	34	UN2092
tert-Butyl hydroperoxide	34	UN2093
tert-Butyl hydroperoxide	34	UN2094
N-n-Butyl-imidazole	37	UN2690
n-Butyl isocyanate	40	UN2485
tert-Butyl isocyanate	40	UN2484
tert-Butyl isopropyl benzene hydroperoxide	32	UN2091
Butyl mercaptan	16	UN2347
n-Butyl methacrylate	19P	UN2227
Butyl methyl ether	14	UN2350
tert-Butyl monoperoxymaleate	33	UN2099
tert-Butyl monoperoxymaleate	32	UN2100
tert-Butyl monoperoxymaleate	32	UN2101
tert-Butyl monoperoxyphthalate	32	UN2105
Butyl nitrites	17	UN2351
tert-Butyl peroxide	32	UN2102
tert-Butyl peroxyacetate	32	UN2095
tert-Butyl peroxyacetate	32	UN2096
tert-Butyl peroxybenzoate	32	UN2097
tert-Butyl peroxybenzoate	32	UN2098
tert-Butyl peroxybenzoate	32	UN2890
tert-Butyl peroxycrotonate	32	UN2183
n-Butyl peroxydicarbonate	35	UN2169
n-Butyl peroxydicarbonate	35	UN2170
tert-Butyl peroxydiethylacetate	35	UN2144
tert-Butyl peroxydiethylacetate with tert-Butyl peroxybenzoate	32	UN2551
tert-Butyl peroxy-2-ethylhexanoate	35	UN2143
tert-Butyl peroxy-2-ethylhexanoate, *not more than 30 per cent with* 2,2-Di-(tert-butylperoxy) butane	35	UN2886
tert-Butyl peroxy-2-ethylhexanoate, *not more than 12 per cent with* 2,2-Di-(tert-butylperoxy) butane	32	UN2887
tert-Butyl peroxy-2-ethylhexanoate	35	UN2888
tert-Butyl peroxyisobutyrate	35	UN2142
tert-Butyl peroxyisobutyrate	35	UN2562
tert-Butyl peroxyisononanoate	32	UN2104
tert-Butyl peroxyisopropyl carbonate	33	UN2103
tert-Butyl peroxyneodecanoate	35	UN2177
tert-Butyl peroxyneodecanoate	35	UN2594
3-tert-Butyl peroxy-3-phenylphthalide	32	UN2596
tert-Butyl peroxypivalate	35	UN2110
tert-Butyl peroxypivalate	35	UN3047

tert-Butylperoxy stearyl carbonate	32	UN3062
tert-Butyl peroxy-3,5,5-trimethylhexanoate	32	UN2104
Butylphenols, liquid	38	UN2228
Butylphenols, solid	38	UN2229
n-Butyl phthalate	49	NA9095
Butylpropionate	19	UN1914
Butyl toluenes	37	UN2667
Butyltrichlorosilane	40	UN1747
5-tert-Butyl-2-4-6-trinitro-m-xylene	21	UN2956
Butyl vinyl ether, inhibited	14P	UN2352
1,4-Butynediol	38	UN2716
Butyraldehyde	18	UN1129
Butyraldoxime	19	UN2840
Butyric Acid	38	UN2820
Butyric anhydride	41	UN2739
Butyronitrile	17	UN2411
Butyryl chloride	40	UN2353
Cacodylic acid	36	UN1572
Cadmium compounds, n.o.s.	39	UN2570
Caesium or Cesium metal	26	UN1407
Caesium hydroxide	42	UN2682
Caesium hydroxide, solution	39	UN2681
Caesium nitrate	30	UN1451
Calcium	26	UN1401
Calcium, pyrophoric	25	UN1855
Calcium alloys	26	UN1401
Calcium alloys, pyrophoric	25	UN1855
Calcium arsenate	36	UN1573
Calcium arsenate and calcium arsenite mixtures, solid	36	UN1574
Calcium arsenite and calcium arsenate mixtures, solid	36	UN1574
Calcium arsenite, solid	36	NA1574
Calcium bisulphite, solution	39	NA2693
Calcium carbide	26	UN1402
Calcium chlorate	29	UN1452
Calcium chlorate, aqueous solution	29	UN2429
Calcium chlorite	29	UN1453
Calcium chromate	49	NA9096
Calcium cyanamide	26	UN1403
Calcium cyanide	42	UN1575
Calcium dithionite	25	UN1923
Calcium dodecylbenzene-sulphonate	49	NA9097
Calcium hydride	26	UN1404
Calcium hydrogen sulphite, solution	39	NA2693
Calcium hydrosulphite	25	UN1923
Calcium hypochlorite, dry	30	UN1748
Calcium hypochlorite, hydrated	30	UN2880
Calcium hypochlorite, hydrated, mixtures	30	UN2880
Calcium hypochlorite mixtures	30	UN1748
Calcium hypochlorite mixtures, dry	30	UN2208
Calcium manganese silicon	26	UN2844
Calcium metal *or* Calcium metal, crystalline	26	UN1401
Calcium nitrate	30	UN1454
Calcium oxide	42	UN1910
Calcium perchlorate	30	UN1455
Calcium perchlorate solutions	30	UN1455
Calcium permanganate	30	UN1456
Calcium peroxide	29	UN1457

Calcium phosphide	27	UN1360
Calcium resinate	20	UN1313
Calcium resinate, fused	20	UN1314
Calcium silicide	26	UN1405
Calcium silicon	26	UN1406
Camphene	20	NA9011
Camphor, *synthetic*	20	UN2717
Camphor oil	15	UN1130
Caproic acid	38	UN2829
Caprylyl peroxide, solution	32	UN2129
Carbamate pesticides, liquid, flammable, toxic, n.o.s.	16	UN2758
Carbamate pesticides, liquid, toxic, n.o.s.	36	UN2992
Carbamate pesticides, liquid, toxic, flammable, n.o.s.	17	UN2991
Carbamate pesticides, solid, toxic, n.o.s.	36	UN2757
Carbaryl	36	NA2757
Carbofuran	36	NA2757
Carbofuran mixtures, liquid	36	NA2757
Carbon, activated	20	UN1362
Carbon, *animal or vegetable origin*	20	UN1361
Carbon bisulphide	16	UN1131
Carbon dioxide, compressed *or* Carbon dioxide	09	UN1013
Carbon dioxide, liquefied	09	UN2187
Carbon dioxide, refrigerated liquid	09	UN2187
Carbon dioxide, solid	09	UN1845
Carbon dioxide and ethylene oxide mixtures *with more than 6 % ethylene oxide*	05E	UN1041
Carbon dioxide and ethylene oxide mixtures *with not more than 6 % ethylene oxide*	06	UN1952
Carbon dioxide and nitrous oxide mixtures	06	UN1015
Carbon dioxide and oxygen mixtures	10	UN1014
Carbon disulphide	16	UN1131
Carbon ice	09	UN1845
Carbon monoxide	05	UN1016
Carbon monoxide and hydrogen mixture	05	UN2600
Carbon monoxide, refrigerated liquid	05	NA9202
Carbon remover, liquid	18	UN1132
Carbon tetrabromide	36	UN2516
Carbon tetrachloride	36	UN1846
Carbonyl fluoride	07	UN2417
Carbonyl sulphide	05	UN2204
Castor beans	37	UN2969
Castor flake	37	UN2969
Castor meal	37	UN2969
Castor pomace	37	UN2969
Caustic alkali liquid, n.o.s.	39	UN1719
Caustic potash, solid	39	UN1813
Caustic potash, solution	39	UN1814
Caustic soda, solid	39	UN1823
Caustic soda, solution	39	UN1824
Celluloid	20	UN2000
Celluloid, scrap	20	UN2002
Cerium, crude	52	UN1333
Cerium, *slabs, ingots or rods*	52	UN1333
Cerium, *turnings or gritty powder*	26	UN3078
Cesium hydroxide	42	UN2682
Cesium hydroxide, solution	39	UN2681
Cesium metal	26	UN1407

Cesium nitrate	30	UN1451
Charcoal	20	UN1361
Charcoal, activated	20	UN1362
Charcoal briquettes	20	NA1361
Chemical kit	38	NA1760
Chloral, anhydrous, inhibited	38	UN2075
Chlorate and borate mixtures	30	UN1458
Chlorate and magnesium chloride mixtures	30	UN1459
Chlorates, inorganic, n.o.s.	30	UN1461
Chlorates, inorganic, aqueous solutions, n.o.s.	30	UN3210
Chlordane, liquid	18	NA2762
Chloric acid, solution	30	UN2626
Chlorine	12	UN1017
Chlorine dioxide hydrate, frozen	31	NA9191
Chlorine pentafluoride	12	UN2548
Chlorine trifluoride	12	UN1749
Chlorites, inorganic, n.o.s.	30	UN1462
Chloroacetaldehyde	38	UN2232
Chloroacetic acid, liquid	38	UN1750
Chloroacetic acid, molten	38	UN3250
Chloroacetic acid, solid	38	UN1751
Chloroacetic acid, solution	38	UN1750
Chloroacetone, stabilized	19E	UN1695
Chloroacetonitrile	19	UN2668
Chloroacetophenone, liquid or solid	38	UN1697
Chloroacetyl chloride	41	UN1752
Chloroanilines, liquid	37	UN2019
Chloroanilines, solid	37	UN2018
Chloroanisidines	37	UN2233
Chlorobenzene	18	UN1134
Chlorobenzotrifluorides	19	UN2234
p-Chlorobenzoyl peroxide	32	UN2113
p-Chlorobenzoyl peroxide	32	UN2114
p-Chlorobenzoyl peroxide	32	UN2115
Chlorobenzylchlorides	38	UN2235
1-Chloro-3-bromopropane	36	UN2688
Chlorobutanes	18	UN1127
Chlorocresols	37	UN2669
3-chloro-4-diethylaminobenzene-diazonium zinc chloride	21	UN3033
Chlorodifluoro-bromomethane	06	UN1974
Chlorodifluoroethanes	04	UN2517
Chlorodifluoromethane	06	UN1018
Chlorodifluoromethane and chloropentafluoroethane mixture	06	UN1973
Chlorodinitrobenzenes	38E	UN1577
Chloroform	36	UN1888
Chloroformates, n.o.s.	40	UN2742
Chloromethylchloroformate	42	UN2745
Chloromethyl ethyl ether	17	UN2354
3-Chloro-4-methylphenylisocyanate	41	UN2236
Chloronitroanilines	38	UN2237
Chloronitrobenzenes	37E	UN1578
Chloronitrotoluenes	37	UN2433
Chloropentafluoroethane	06	UN1020
Chloropentafluoroethane and chlorodifluoromethane mixture	06	UN1973
3-Chloroperoxybenzoic acid	33	UN2755
Chlorophenates, liquid	39	UN2904
Chlorophenates, solid	39	UN2905
Chlorophenols, liquid	38	UN2021
Chlorophenols, solid	38	UN2020

Chlorophenyltri-chlorosilane	41	UN1753
Chloropicrin	39E	UN1580
Chloropicrin and methyl bromide mixtures	07	UN1581
Chloropicrin and methyl chloride mixtures	05	UN1582
Chloropicrin and non-flammable, non-liquefied, compressed gas mixture	07	NA1955
Chloropicrin mixtures, n.o.s.	39	UN1583
Chloropivaloyl chloride	41	NA9264
Chloroplatinic acid, solid	39	UN2507
Chloroprene, inhibited	17P	UN1991
2-Chloropropane	18	UN2356
3-Chloropropanol-1	38	UN2849
2-Chloropropene	18P	UN2456
alpha-Chloropropionic acid	38	UN2511
2-Chloropyridine	38	UN2822
Chlorosilanes, n.o.s.	40	UN2985
Chlorosilanes, n.o.s.	40	UN2986
Chlorosilanes, n.o.s.	41	UN2987
Chlorosilanes, n.o.s. *which in contact with water emit flammable gases*	26	UN2988
Chlorosulphonic acid	42	UN1754
1-Chloro-1,2,2,2-tetrafluoroethane	06	UN1021
Chlorotetrafluoroethane	06	UN1021
Chlorotoluenes	18	UN2238
4-Chloro-o-toluidine hydrochloride	38	UN1579
Chlorotoluidines, liquid or solid	38	UN2239
Chlorotrifluoroethane	06	UN1983
Chlorotrifluoromethane	06	UN1022
Chlorotrifluoromethane and trifluoromethane azeotropic mixture	06	UN2599
Chlorpyrifos	37	NA2783
Chromic acetate	49	NA9101
Chromic acid, solid	30	NA1463
Chromic acid, solid	30	UN1463
Chromic acid, solution	39	UN1755
Chromic fluoride, solid	39	UN1756
Chromic fluoride, solution	39	UN1757
Chromic sulphate	49	NA9100
Chromium nitrate	30	UN2720
Chromium oxychloride	42	UN1758
Chromium trioxide, anhydrous	30	UN1463
Chromosulphuric acid	39	UN2240
Chromous chloride	49	NA9102
Cigarette lighter *with flammable gas*	04	UN1057
Cigarette lighter *(with lighter fluid)*	14	UN1226
Cigarettes, self-lighting	20	UN1867
Coal gas	05	UN1023
Coal tar distillates, flammable	14	UN1136
Coal tar distillates, flammable	15	UN1137
Coating solution	14	UN1139
Cobalt naphthenates, powder	20	UN2001
Cobaltous bromide	49	NA9103
Cobaltous formate	49	NA9104
Cobaltous sulphamate	49	NA9105
Cobalt resinate, precipitated	20	UN1318
Cocculus or Cocculus, solid	36	UN1584
Combustible liquid, n.o.s.	15	NA1993
Compounds, cleaning liquid	38	NA1760

Compounds, cleaning liquid	15	NA1993
Compressed gas and hexaethyl tetraphosphate mixtures	07	UN1612
Compressed gas, oxidizing, n.o.s.	10	UN3156
Compressed gases, toxic, flammable, n.o.s.	05	UN1953
Compressed *or* Liquefied gases, n.o.s.	06	UN1956
Compressed *or* Liquefied gases, flammable, n.o.s.	04	UN1954
Compressed *or* Liquefied gases, toxic, n.o.s.	07	UN1955
Copper acetoarsenite	36	UN1585
Copper arsenite	36	UN1586
Copper based pesticides, liquid, flammable, toxic, n.o.s.	16	UN2776
Copper based pesticides, liquid, toxic, n.o.s.	36	UN3010
Copper based pesticides, liquid, toxic, flammable, n.o.s.	17	UN3009
Copper based pesticides, solid, toxic, n.o.s.	36	UN2775
Copper chlorate	30	UN2721
Copper chloride	39	UN2802
Copper cyanide	36	UN1587
Copra	20	UN1363
Corrosive liquid, n.o.s.	39	UN1760
Corrosive liquid, flammable, n.o.s.	18	UN2920
Corrosive liquid, oxidizing, n.o.s.	30	UN3093
Corrosive liquid, poisonous, n.o.s.	39	UN2922
Corrosive liquid, water-reactive, n.o.s.	26	UN3094
Corrosive liquid, which in contact with water emit flammable gases, n.o.s.	26	UN3094
Corrosive solid, n.o.s.	39	UN1759
Corrosive solid, flammable, n.o.s.	38	UN2921
Corrosive solid, oxidizing, n.o.s.	30	UN3084
Corrosive solid, poisonous, n.o.s.	39	UN2923
Corrosive solid, self-heating, n.o.s.	23	UN3095
Corrosive solid, water-reactive, n.o.s.	26	UN3096
Corrosive solid, which in contact with water emit flammable gases, n.o.s.	26	UN3096
Cotton, wet	20	UN1365
Cotton waste, oily	20	UN1364
Coumaphos	37	NA2783
Coumaphos mixture, liquid	37	NA2783
Coumarin derivative pesticides, liquid, flammable, toxic, n.o.s.	16	UN3024
Coumarin derivative pesticides, liquid, toxic, n.o.s.	36	UN3026
Coumarin derivative pesticides, liquid, toxic, flammable, n.o.s.	17	UN3025
Coumarin derivative pesticides, solid, toxic, n.o.s.	36	UN3027
Creosote, coal tar	15	NA1993
Cresols	38	UN2076
Cresylic acid	38	UN2022
Crotonaldehyde, stabilized	18P	UN1143

Crotonic acid	38	UN2823
Crotonylene	14E	UN1144
Cumene	19	UN1918
Cumene hydroperoxide	34	UN2116
Cumyl hydroperoxide	34	UN2116
Cumyl peroxyneodecanoate	35	UN2963
Cumyl peroxypivalate	35	UN2964
Cupric acetate	49	NA9106
Cupric nitrate	30	NA1479
Cupric sulphate	49	NA9109
Cupric sulphate, *ammoniated*	49	NA9110
Cupric tartrate	49	NA9111
Cupriethylenediamine solution	39	UN1761
Cyanide solutions, n.o.s.	42	UN1935
Cyanides, inorganic, n.o.s.	42	UN1588
Cyanogen, liquefied *or* Cyanogen gas	05	UN1026
Cyanogen bromide	42	UN1889
Cyanogen chloride, inhibited	07	UN1589
Cyanogen gas	05	UN1026
Cyanuric chloride	42	UN2670
Cyclobutane	04	UN2601
Cyclobutylchloroformate	40	UN2744
1,5,9-Cyclododecatriene	38	UN2518
Cycloheptane	14	UN2241
Cycloheptatriene	17	UN2603
Cycloheptene	14	UN2242
Cyclohexane	14	UN1145
Cyclohexanone	15	UN1915
Cyclohexanone peroxide(s)	33	UN2117
Cyclohexanone peroxide(s)	34	UN2118
Cyclohexanone peroxide(s)	34	UN2119
Cyclohexanone peroxide(s)	34	UN2896
Cyclohexene	14	UN2256
Cyclohexenyltrichlorosilane	41	UN1762
Cyclohexyl acetate	18	UN2243
Cyclohexylamine	19	UN2357
Cyclohexyl isocyanate	40	UN2488
Cyclohexyl mercaptan	17	UN3054
Cyclohexyltrichlorosilane	41	UN1763
Cyclooctadiene phosphines	23	UN2940
Cyclooctadienes	19P	UN2520
Cyclooctatetraene	15	UN2358
Cyclopentane	14	UN1146
Cyclopentanol	17	UN2244
Cyclopentanone	15	UN2245
Cyclopentene	14	UN2246
Cyclopropane *or* Cyclopropane, liquefied	04	UN1027
Cymenes	19	UN2046
2,4-D	37	NA2765
2,4-D ester	37	NA2765
DDT	36	NA2761
Decaborane	23	UN1868
Decahydronaphthalene	19	UN1147
n-Decane	15	UN2247
Decanoyl peroxide	35	UN2120
Denatured alcohol	16	NA1986
Deuterium	04	UN1957
Devices, small, hydrocarbon gas powered, with relief device	04	UN3150
Diacetone alcohol	16	UN1148
Diacetone alcohol peroxides	35	UN2163
Diacetyl	14	UN2346
Diacetyl peroxide	35	UN2084
Diallylamine	19	UN2359
Diallylether	15P	UN2360
4,4'-Diaminodiphenyl methane	38	UN2651
Di-(aminopropyl) piperazine	38	NA1760

Di-n-amylamine	19	UN2841
Diazinon	37	NA2783
2-Diazo-1-naphthol-4-sulphochloride	21	UN3042
2-Diazo-1-naphthol-5-sulphochloride	21	UN3043
Dibenzoyl peroxide	33	UN2085
Dibenzoyl peroxide	33	UN2087
Dibenzoyl peroxide	33	UN2088
Dibenzoyl peroxide	33	UN2089
Dibenzoyl peroxide	33	UN2090
Dibenzyldichlorosilane	41	UN2434
Dibenzyl peroxydicarbonate	35	UN2149
Diborane	13	UN1911
Diborane mixtures	13	NA1911
Diborane mixtures	13	UN1911
Dibromobenzene	17	UN2711
1,2-Dibromobutan-3-one	39	UN2648
Dibromochloropropane	38	UN2872
Dibromodifluoromethane	39	UN1941
1,2-Dibromoethylene	18	——
Dibromomethane	39	UN2664
Di-n-butyl amine	38	UN2248
Dibutylaminoethanol	38	UN2873
Di-(4-tert-butylcyclohexyl) peroxydicarbonate	35	UN2154
Di-(4-tert-butylcyclohexyl) peroxydicarbonate	35	UN2894
Dibutyl ethers	15	UN1149
Di-tert-butyl peroxide	32	UN2102
2,2-Di-(tert-butylperoxy) butane	32	UN2111
1,1-Di-(tert-butylperoxy) cyclohexane	33	UN2179
1,1-Di-(tert-butylperoxy) cyclohexane	33	UN2180
1,1-Di-(tert-butylperoxy) cyclohexane	32	UN2885
1,1-Di-(tert-butylperoxy) cyclohexane	32	UN2897
1,1-Di-(tert-butylperoxy) cyclohexane	32	UN3069
Di-n-butyl peroxydicarbonate	35	UN2169
Di-n-butyl peroxydicarbonate	35	UN2170
Di-(sec-butyl) peroxydicarbonate	35	UN2151
Di-(sec-butyl) peroxydicarbonate	35	UN2150
1,3-Di-(2-tert-butyl-peroxyisopropyl) benzene	32	UN2112
1,4-Di-(2-tert-butyl-peroxyisopropyl) benzene	32	UN2112
1,4-Di-(2-tert-butyl-peroxyisopropyl) benzene and 1,3-Di-(2-tert-butyl-peroxyisopropyl) benzene mixtures	32	UN2112
Di-(tert-butylperoxy) phthalate	33	UN2106
Di-(tert-butylperoxy) phthalate	33	UN2107
Di-(tert-butylperoxy) phthalate	33	UN2108
2,2-Di-(tert-butylperoxy) propane	32	UN2883
2,2-Di-(tert-butylperoxy) propane	32	UN2884
1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane	32	UN2145
1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane	32	UN2146
1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane	32	UN2147
Dicetyl peroxydicarbonate	35	UN2164
Dicetyl peroxydicarbonate	35	UN2895
Dichloroacetic acid	38	UN1764
1,3-Dichloroacetone	38	UN2649

Dichloroacetyl chloride	41	UN1765
Dichloroanilines	38	UN1590
m-Dichlorobenzene	37	——
o-Dichlorobenzene	37	UN1591
Dichlorobenzene, ortho	37	UN1591
p-Dichlorobenzene	37	UN1592
Dichlorobenzene, para	37	UN1592
Di-4-chlorobenzoyl peroxide	32	UN2113
Di-4-chlorobenzoyl peroxide	32	UN2114
Di-4-chlorobenzoyl peroxide	32	UN2115
2,4-Dichlorobenzoyl peroxide	32	UN2137
2,4-Dichlorobenzoyl peroxide	32	UN2138
2,4-Dichlorobenzoyl peroxide	32	UN2139
1,4-Dichlorobutene-2	18	NA2920
Dichlorobutene	18	NA2924
1,1-Dichloro-2,2-di-(p-chlorophenyl) ethane	36	NA2761
2,2'-Dichlorodiethyl ether	37	UN1916
Dichlorodifluoroethylene	36	NA9018
Dichlorodifluoromethane	06	UN1028
Dichlorodifluoromethane and difluoroethane azeotropic mixture	06	UN2602
Dichlorodifluoromethane and ethylene oxide mixtures	07	UN3070
Dichlorodimethyl ether, symmetrical	38	UN2249
Dichlorodiphenyltrichloroethane	36	NA2761
1,1-Dichloroethane	18	UN2362
Dichloroethylene	18P	UN1150
Dichloroethyl ether	37	UN1916
Dichlorofluoromethane	06	UN1029
Dichloroisocyanuric acid, dry	30	UN2465
Dichloroisocyanuric acid salts	30	UN2465
Dichloroisopropyl ether	38	UN2490
Dichloromethane	39	UN1593
1,1-Dichloro-1-nitroethane	38	UN2650
Dichloropentanes	17	UN1152
2,4-Dichlorophenoxyacetic acid	37	NA2765
2,4-Dichlorophenoxyacetic acid ester	37	NA2765
Dichlorophenyl isocyanates	41	UN2250
Dichlorophenyltrichlorosilane	41	UN1766
1,3-Dichloropropanol-2	38	UN2750
Dichloropropane	18	UN1279
Dichloropropene	19	UN2047
Dichloropropene and dichloropropane mixtures	18	NA2047
Dichloropropene and propylene dichloride mixtures	18	NA2047
2,2-Dichloropropionic acid	38	NA1760
Dichlorosilane	05	UN2189
Dichlorotetrafluoroethane	06	UN1958
3,5-Dichloro-2,4,6-trifluoropyridine	38	NA2810
Dichlorvos	37	NA2783
Dichlorvos mixture, dry	37	NA2783
Dicumyl peroxide	32	UN2121
Dicycloheptadiene	14	UN2251
Dicyclohexylamine	38	UN2565
Dicyclohexylammonium nitrite	38	UN2687
Dicyclohexyl peroxydicarbonate	35	UN2152

Dicyclohexyl peroxydicarbonate	35	UN2153
Dicyclopentadiene	19E	UN2048
Didecanoyl peroxide	35	UN2120
2,2-Di-(4,4-di-tert-butylperoxycyclohexyl) propane	32	UN2168
Di-2,4-dichlorobenzoyl peroxide	32	UN2137
Di-2,4-dichlorobenzoyl peroxide	32	UN2138
Di-2,4-dichlorobenzoyl peroxide	32	UN2139
1,2-Di-(dimethylamino) ethane	18	UN2372
Didymium nitrate	30	UN1465
Dieldrin	36	NA2761
Diesel fuel	15	UN1202
Diesel fuel	15	NA1993
Diethoxymethane	14	UN2373
2,5-Diethoxy-4-morpholinobenzene-diazonium zinc chloride	22	UN3036
3,3-Diethoxypropene	14	UN2374
Diethylamine	18	UN1154
Diethylaminoethanol	18	UN2686
Diethylaminopropylamine	19	UN2684
N,N- Diethylaniline	38	UN2432
Diethylbenzene	17	UN2049
Diethyl carbonate	15	UN2366
Diethyldichlorosilane	41	UN1767
N,N-Diethylethylenediamine	38	UN2685
Diethylenetriamine	38	UN2079
Diethyl ether	14	UN1155
Di-2-(ethylhexyl) peroxydicarbonate	35	UN2122
Di-(2-ethylhexyl) peroxydicarbonate	35	UN2123
Di-(2-ethylhexyl) peroxydicarbonate	35	UN2960
Diethyl ketone	14	UN1156
Diethyl peroxydicarbonate	35	UN2175
Diethyl sulphate	37	UN1594
Diethyl sulphide	26	UN2375
Diethylthiophosphoryl chloride	40	UN2751
Diethylzinc	25	UN1366
Difluorochloroethanes	04	UN2517
Difluoroethane	04	UN1030
Difluoroethane and dichlorodifluoromethane azeotropic mixture	06	UN2602
1,1-Difluoroethylene	04P	UN1959
Difluorophosphoric acid, anhydrous	39	UN1768
2,2-Dihydroperoxy propane	33	UN2178
2,3-Dihydropyran *or* Dihydropyran	14	UN2376
Di-(1-hydroxycyclohexyl) peroxide	32	UN2148
Diisobutylamine	19	UN2361
Diisobutylene, isomeric compounds	14	UN2050
Diisobutyl ketone	15	UN1157
Diisobutyryl peroxide	35	UN2182
Diisooctyl acid phosphate	38	UN1902
Diisopropylamine	18	UN1158
Diisopropylbenzene hydroperoxide	32	UN2171
N,N-Diisopropyl-ethanolamine	38	UN2825
Diisopropyl ether	14	UN1159
Diisopropyl peroxydicarbonate	35	UN2133
Diisopropyl peroxydicarbonate	35	UN2134
Diisotridecyl peroxydicarbonate	35	UN2889
Diketene, inhibited	41P	UN2521
Dilauroyl peroxide	33	UN2124
Dilauroyl peroxide	33	UN2893
1,1-Dimethoxyethane	14	UN2377

1,2-Dimethoxyethane	14	UN2252
Dimethylamine, anhydrous	05	UN1032
Dimethylamine, solution	18	UN1160
2-Dimethylaminoaceto-nitrile	18	UN2378
4-Dimethylamino-6-(2-dimethylaminoethoxy) toluene-2-diazonium zinc chloride	22	UN3039
Dimethylaminoethyl methacrylate	38P	UN2522
N,N- Dimethylaniline	38	UN2253
Di-(2-methylbenzoyl) peroxide	35	UN2593
2,3-Dimethylbutane	14	UN2457
1,3-Dimethylbutylamine	18	UN2379
Dimethylcarbamoyl chloride	41	UN2262
Dimethyl carbonate	18	UN1161
Dimethyl chlorothiophosphate	41	UN2267
Dimethylcyclohexanes	14	UN2263
Dimethylcyclohexylamine	19	UN2264
2,5-Dimethyl-2,5-di-(benzoylperoxy) hexane	33	UN2172
2,5-Dimethyl-2,5-di-(benzoylperoxy) hexane	33	UN2173
2,5-Dimethyl-2,5-di-(benzoylperoxy) hexane	33	UN2959
2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexane	32	UN2155
2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexane	32	UN2156
2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexyne-3	33	UN2158
2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexyne-3	32	UN2159
Dimethyldichlorosilane	40	UN1162
Dimethyldiethoxysilane	14	UN2380
2,5-Dimethyl-2,5-di-(2-ethylhexanoylperoxy) hexane	35	UN2157
2,5-Dimethyl-2,5-dihydroperoxy hexane	33	UN2174
3,5-Dimethyl-3,5-dihydroxy-dioxolane-1,2	32	UN2080
3,5-Dimethyl-3,5-dihydroxydioxolane-1,2	32	UN3061
Dimethyldioxanes	15	UN2707
Dimethyl disulphide	18	UN2381
2,5-Dimethyl-2,5-di-(isononanoylperoxy)-hexane	32	UN3060
2,5-Dimethyl-2,5-di-(3,5,5-trimethyl hexanoylperoxy)-hexane	32	UN3060
Dimethylethanolamine	18	UN2051
Dimethyl ether	04	UN1033
N,N-Dimethylformamide	19	UN2265
Dimethylhexane dihydroperoxide	33	UN2174
Dimethylhydrazine, symmetrical or 1,2-Dimethylhydrazine	16	UN2382
1,1-Dimethylhydrazine	25	UN1163
Dimethylhydrazine, unsymmetrical *or* 1,1-Dimethylhydrazine	25	UN1163
Dimethylmagnesium	25	UN1368
2,2-Dimethyl propane, *other than pentane and isopentane*	04	UN2044
Dimethyl-N-propylamine	19	UN2266
Dimethyl sulphate	41	UN1595
Dimethyl sulphide	18	UN1164
Dimethyl thiophosphoryl chloride	41	UN2267
Dimethylzinc	25	UN1370
Dimyristyl peroxydicarbonate	35	UN2595

Dimyristyl peroxydicarbonate	35	UN2892
Dinitroanilines	38E	UN1596
Dinitrobenzenes	37E	UN1597
Dinitrochlorobenzene	38E	UN1577
Dinitro-o-cresol	38E	UN1598
Dinitrocyclohexylphenol	38	NA9026
Dinitrogen tetroxide and Nitric oxide, mixtures	12	UN1975
Dinitrogen tetroxide liquefied	12	UN1067
Dinitrogen tetroxide (Nitrogen dioxyde), liquefied	12	UN1067
Dinitrophenol solutions	39	UN1599
Dinitrophenol, wetted	02	UN1320
Dinitrophenolates, wetted	02	UN1321
Dinitroresorcinol, wetted	02	UN1322
N,N'-Dinitroso-N,N'-dimethyl terephthalamide	21	UN2973
N,N'-Dinitrosopenta-methylene tetramine	21	UN2972
Dinitrotoluenes, liquid	37E	UN2038
Dinitrotoluenes, molten	37E	UN1600
Dinitrotoluenes, solid	37E	UN2038
Di-n-nonanoyl peroxide	35	UN2130
Di-n-octanoyl peroxide	35	UN2129
Di-n-octanoyl peroxide, solution	32	UN2129
Dioxane	14	UN1165
Dioxolane	14	UN1166
Dipentene	14	UN2052
Diperoxy azelaic acid	35	UN2958
Diperoxy dodecane diacid	35	UN3063
Di-(2-phenoxyethyl) peroxy dicarbonate	32	UN3059
Di-(2-phenoxyethyl) peroxydicarbonate	33	UN3058
Diphenylamine chloroarsine	39	UN1698
Diphenylchloroarsine	36	UN1699
Diphenyldichlorosilane	41	UN1769
Diphenylmethane-4,4'-diisocyanate	41	UN2489
Diphenylmethyl bromide	38	UN1770
Diphenyloxide-4,4'-di-sulphohydrazide	21	UN2951
Dipicryl sulphide, wetted	02	UN2852
Dipropionyl peroxide	35	UN2132
Dipropylamine	18	UN2383
4-Dipropylamino-benzenediazonium zinc chloride	21	UN3034
Dipropyl ether	14	UN2384
Dipropylketone	15	UN2710
Di-n-propyl peroxydicarbonate	35	UN2176
Disinfectants, corrosive, liquid, n.o.s.	38	UN1903
Disinfectants, liquid, n.o.s., poisonous	36	UN3142
Disinfectants, poisonous, solid, n.o.s.	36	UN1601
Dispersant gas, n.o.s.	06	UN1078
Dispersant gas, n.o.s. (cryogenic liquid)	04	NA1954
Distearyl peroxy-dicarbonate	32	UN2592
Disuccinic acid peroxide	33	UN2135
Disuccinic acid peroxide	35	UN2962
Disulfoton	37	NA2783
Disulfoton mixture, dry	37	NA2783
Disulfoton mixture, liquid	37	NA2783
Dithiocarbamate pesticides, liquid, flammable, toxic, n.o.s.	16	UN2772

Dithiocarbamate pesticides, liquid, toxic, n.o.s.	36	UN3006
Dithiocarbamate pesticides, liquid, toxic, flammable, n.o.s.	17	UN3005
Dithiocarbamate pesticides, solid, toxic, n.o.s.	36	UN2771
Di-(3,5,5-trimethyl-1,2-dioxolanyl-3) peroxide	35	UN2597
Di-(3,5,5-trimethyl-hexanoyl) peroxide	35	UN2128
Divinyl ether, inhibited	14P	UN1167
Dodecylbenzene-sulphonic acid	38	NA2584
Dodecyltrichlorosilane	41	UN1771
Driers, paint *or* varnish, liquid, n.o.s.	14	UN1168
Driers, paint *or* varnish, solid, n.o.s.	20	UN1371
Dye intermediates, n.o.s.	39	UN2801
Dry ice	09	UN1845
Dye intermediates, n.o.s., *poisonous, liquid*	36	UN1602
Dye intermediates, n.o.s., *poisonous, solid*	36	UN1602
Dye intermediates, solid, n.o.s., *corrosive*	39	UN3147
Dye intermediates, solid, n.o.s., *poisonous*	36	UN3143
Dyes, n.o.s.	39	UN2801
Dyes, n.o.s., *poisonous, liquid*	36	UN1602
Dyes, n.o.s., *poisonous, solid*	36	UN1602
Dyes, solid, n.o.s., *corrosive*	39	UN3147
Dyes, solid, n.o.s., *poisonous*	36	UN3143

EDTA	49	NA9117
Endosulfan	36	NA2761
Endosulfan mixture, liquid	36	NA2761
Endrin	36	NA2761
Endrin mixture, liquid	36	NA2761
Engines, internal combustion, *including when fitted in machinery or vehicles*	14	UN3166
Engine starting fluid *with flammable gas*	04	UN1960
Environmentally hazardous substances, liquid, n.o.s.	49	UN3082
Environmentally hazardous substances, solid, n.o.s.	49	UN3077
Epibromohydrin	18	UN2558
Epichlorohydrin	18P	UN2023
1,2-Epoxy-3-ethoxypropane	15	UN2752
Eradicators, grease, liquid	19	UN1850
Eradicators, paint, liquid	19	UN1850
Etching acid, liquid, n.o.s.	42	NA1790
Ethane *or* Ethane, compressed	04	UN1035
Ethane, refrigerated, liquid	04	UN1961
Ethane-Propane mixture, refrigerated liquid	04	NA1961
Ethanol	14	UN1170
Ethanol solutions	14	UN1170
Ethanolamine	38	UN2491
Ethanolamine solutions	38	UN2491
Ethion	37	NA2783
Ethion mixture, dry	37	NA2783
Ethyl acetate	18	UN1173
Ethyl acetylene, inhibited	04P	UN2452
Ethyl acrylate, inhibited	18P	UN1917

Ethyl alcohol	14	UN1170
Ethyl alcohol solutions	14	UN1170
Ethyl aluminum dichloride	25	UN1924
Ethyl aluminum sesquichloride	25	UN1925
Ethylamine	05	UN1036
Ethylamine, aqueous solutions	18	UN2270
Ethyl amyl ketone	15	UN2271
2-Ethylaniline	38	UN2273
N-Ethylaniline	38	UN2272
Ethylbenzene	16	UN1175
N-Ethyl-N-benzylaniline	38	UN2274
N-Ethyl benzyltoluidines	38	UN2753
Ethyl borate	26	UN1176
Ethyl bromide	17	UN1891
Ethyl bromoacetate	40	UN1603
2-Ethylbutanol	17	UN2275
Ethyl butyl acetate	19	UN1177
Ethyl butyl ether	14	UN1179
2-Ethylbutyraldehyde *or* Ethyl butyraldehyde	18	UN1178
Ethyl butyrate	19	UN1180
Ethyl chloride	04	UN1037
Ethyl chloroacetate	40	UN1181
Ethyl chloroformate	40	UN1182
Ethyl-2-chloropropionate	19	UN2935
Ethyl chlorothioformate	40	UN2826
Ethyl crotonate	18	UN1862
Ethyl cyanoacetate	41	UN2666
Ethyl-3,3-di-(tert-butylperoxy) butyrate	33	UN2184
Ethyl-3,3-di-(tert-butylperoxy) butyrate	32	UN2185
Ethyl-3,3-di-(tert-butylperoxy) butyrate	32	UN2598
Ethyldichloroarsine	36	UN1892
Ethyldichlorosilane	27	UN1183
Ethylene, acetylene and propylene in mixtures, refrigerated liquid, *containing at least 71.5% ethylene with not more than 22.5% acetylene and not more than 6% propylene.*	04	UN3138
Ethylene *or* Ethylene, compressed	04P	UN1962
Ethylene, refrigerated liquid	04	UN1038
Ethylene chlorohydrin	19	UN1135
Ethylenediamine	19	UN1604
Ethylenediaminetetra-acetic acid	49	NA9117
Ethylene dibromide	39	UN1605
Ethylene dibromide and methyl bromide mixtures, liquid	36	UN1647
Ethylene dichloride	18	UN1184
Ethylene glycol diethyl ether	15	UN1153
Ethylene glycol monobutyl ether	37	UN2369
Ethylene glycol monoethyl ether	15	UN1171
Ethylene glycol monoethyl ether acetate	19	UN1172
Ethylene glycol monomethyl ether	15	UN1188
Ethylene glycol monomethyl ether acetate	19	UN1189
Ethyleneimine, inhibited	18P	UN1185
Ethylene oxide, *pure or with nitrogen*	05E	UN1040
Ethylene oxide and carbon dioxide mixtures, *with more than 6 % ethylene oxide*	05E	UN1041

Ethylene oxide and carbon dioxide mixtures, *with not more than 6% ethylene oxide*	06	UN1952
Ethylene oxide and dichlorodifluoromethane mixtures	07	UN3070
Ethylene oxide and propylene oxide mixtures	16P	UN2983
Ethyl ether	14	UN1155
Ethyl fluoride	04	UN2453
Ethyl formate	18	UN1190
2-Ethylhexenal	38	——
2-Ethylhexylamine	38	UN2276
2-Ethylhexylchloroformate	41	UN2748
Ethyl isobutyrate	18	UN2385
Ethyl isocyanate	40	UN2481
Ethyl lactate	19	UN1192
Ethyl mercaptan	16	UN2363
Ethyl methacrylate	19P	UN2277
Ethyl methyl ether	04	UN1039
Ethyl methyl ketone	14	UN1193
Ethyl nitrite, solutions	18	UN1194
Ethyl orthoformate	19	UN2524
Ethyl oxalate	41	UN2525
Ethylphenyldichlorosilane	41	UN2435
Ethyl phosphonothioic dichloride, anhydrous	41	NA1760
Ethyl phosphonothioic dichloride, anhydrous	41	NA2927
Ethyl phosphonous dichloride, anhydrous	25	NA2845
Ethyl phosphorodichloridate	41	NA1760
Ethyl phosphorodichloridate	41	NA2927
1-Ethyl piperidine	18	UN2386
Ethyl propionate	18	UN1195
2-Ethyl-3-propylacrolein	38	——
Ethyl propyl ether	14	UN2615
Ethyl silicate	19	UN1292
Ethylsulphuric acid	41	UN2571
N-Ethyltoluidines	38	UN2754
Ethyltrichlorosilane	40	UN1196
Explosives, division 1.1, 1.2, 1.3, 1.5 or 1.6	02	——
Explosives, division 1.4	03	——
Extracts, aromatic, liquid	14	UN1169
Extracts, flavouring, liquid	14	UN1197
Fabrics, animal, synthetic *or* vegetable, n.o.s., with oil	20	UN1373
Fabrics impregnated with weakly nitrated nitrocellulose, n.o.s.	20	UN1353
Ferric ammonium citrate	49	NA9118
Ferric ammonium oxalate	49	NA9119
Ferric arsenate	36	UN1606
Ferric arsenite	36	UN1607
Ferric chloride	42	UN1773
Ferric chloride, solution	39	UN2582
Ferric fluoride	49	NA9120
Ferric nitrate	30	UN1466
Ferric sulphate	49	NA9121
Ferrocerium	52	UN1323
Ferrosilicon	26	UN1408
Ferrous ammonium sulphate	49	NA9122
Ferrous arsenate	36	UN1608
Ferrous chloride, solid	39	NA1759
Ferrous chloride, solution	39	NA1760
Ferrous metal borings, shavings, turnings *or* cuttings	52	UN2793
Ferrous sulphate	49	NA9125
Fertilizer ammoniating solution	07	UN1043
Fibres, animal or vegetable, n.o.s., *burnt, wet or damp*	20	UN1372

Fibres, animal, synthetic or vegetable, n.o.s., with oil	20	UN1373
Fibres impregnated with weakly nitrated nitrocellulose, n.o.s.	20	UN1353
Films, nitrocellulose base	20	UN1324
Fire extinguisher charges, *corrosive liquid*	39	UN1774
Fire extinguishers, *with compressed or liquefied gases*	06	UN1044
Firelighters, solid, *with flammable liquid*	20	UN2623
Fish meal, stabilized	20	UN2216
Fish meal, unstabilized	20	UN1374
Fish scrap, stabilized	20	UN2216
Fish scrap, unstabilized	20	UN1374
Flammable gas in lighters	04	UN1057
Flammable liquid, n.o.s.	14	UN1993
Flammable liquid, corrosive, n.o.s	18	UN2924
Flammable liquid, poisonous, n.o.s.	16	UN1992
Flammable liquid preparations, n.o.s.	14	UN1142
Flammable solid, n.o.s.	20	UN1325
Flammable solid, corrosive, n.o.s.	38	UN2925
Flammable solid, inorganic, n.o.s.	20	UN3178
Flammable solid, inorganic, corrosive, n.o.s.	38	UN3180
Flammable solid, inorganic, poisonous, n.o.s.	38	UN3179
Flammable solid, organic, n.o.s.	20	UN1325
Flammable solid, organic, corrosive, n.o.s.	38	UN2925
Flammable solid, organic, molten, n.o.s.	20	UN3176
Flammable solid, organic, poisonous, n.o.s.	38	UN2926
Flammable solid, oxidizing, n.o.s.	29	UN3097
Flammable solid, poisonous, n.o.s.	38	UN2926
Fluoboric acid	39	UN1775
Fluorine or Fluorine, compressed	12	UN1045
Fluoroacetic acid	41	UN2642
Fluoroanilines	38	UN2941
Fluorobenzene	17	UN2387
Fluorophosphoric acid, anhydrous	39	UN1776
Fluorosilicates, n.o.s.	36	UN2856
Fluorosulphonic acid	42	UN1777
Fluorotoluenes	16	UN2388
Fluosilicic acid	39	UN1778
Formaldehyde, solutions	19	UN2209
Formaldehyde solutions, flammable	19	UN1198
Formic acid	38	UN1779
Fuel, aviation, turbine engine	14	UN1863
Fuel, pyrophoric, n.o.s.	23	UN1375
Fuel oil	15	UN1202
Fuel oil	15	NA1993
Fuel oil, no. 1,2,4,5,6	15	UN1202
Fuel oil, no. 1,2,4,5,6	15	NA1993
Fumaric acid	49	NA9126
Fumaryl chloride	41	UN1780
Furan	14	UN2389
Furfural	19P	UN1199
Furfuryl alcohol	38	UN2874
Furfurylamine	19	UN2526
Fusee (railway or highway)	20	NA1325
Fusel oil	15	UN1201

Gallium	50	UN2803
Gas drips, hydrocarbon	14	UN1864
Gas, refrigerated liquid, n.o.s.	06	UN3158
Gas identification sets containing poisonous gases	07	NA9035
Gasohol	14	NA1203
Gas oil	14	UN1202
Gasoline	14	UN1203
Gas samples, non-pressurized, flammable, n.o.s., *not deeply refrigerated*	04	UN3167
Gas samples, non-pressurized, toxic, n.o.s., *not deeply refrigerated*	07	UN3169
Gas samples, non-pressurized, toxic, flammable, n.o.s., *not deeply refrigerated*	05	UN3168
Genetically modified micro-organisms	49	UN3245
Germane	05	UN2192
Glycerol alpha-monochlorohydrin	38	UN2689
Glycidaldehyde	19P	UN2622
Guanidine nitrate	30	UN1467
Gutta percha solution	14	UN1205
Hafnium powder, dry	25	UN2545
Hafnium powder, wetted	52	UN1326
Halogenated irritating liquid, n.o.s.	19	UN1610
Hay, bhusa or straw, *wet, damp or contaminated with oil*	20	UN1327
Hazardous substance, liquid, n.o.s.	49	NA9188
Hazardous substance, solid, n.o.s.	49	NA9188
Hazardous waste, liquid, n.o.s.	49	NA3082
Hazardous waste, liquid, n.o.s.	49	NA9189
Hazardous waste, solid, n.o.s.	49	NA3077
Hazardous waste, solid, n.o.s.	49	NA9189
Helium, compressed	08	UN1046
Helium, refrigerated liquid	08	UN1963
Helium-Oxygen, mixture	10	NA1980
n-Heptaldehyde	19	UN3056
Heptanes	14	UN1206
n-Heptene	14	UN2278
Hexachloroacetone	39	UN2661
Hexachlorobenzene	37	UN2729
Hexachlorobutadiene	36	UN2279
Hexachloro-cyclopentadiene	36	UN2646
Hexachloroethane	36	NA9037
Hexachlorophene	36	UN2875
Hexadecyltrichlorosilane	41	UN1781
Hexadiene	14	UN2458
Hexaethyl tetraphosphate	36	UN1611
Hexaethyl tetrapnosphate and compressed gas mixtures	07	UN1612
Hexaethyl tetraphosphate mixture, dry	37	NA2783
Hexaethyl tetraphosphate mixture, liquid	37	NA3018
Hexafluoroacetone	07	UN2420
Hexafluoroacetone hydrate	36	UN2552
Hexafluoroethane	06	UN2193
Hexafluorophosphoric acid	39	UN1782
Hexafluoropropylene	06P	UN1858

Hexafluoropropylene oxide	06	NA1956
Hexaldehyde	19	UN1207
Hexamethylenediamine, solid	38	UN2280
Hexamethylenediamine, solution	38	UN1783
Hexamethylenediisocyanate	41	UN2281
Hexamethyleneimine	18	UN2493
3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane	33	UN2165
3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane	32	UN2166
3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane	32	UN2167
Hexamine	20	UN1328
Hexanes	14	UN1208
Hexanoic acid	38	NA1760
Hexanoic acid	38	UN2829
Hexanols	17	UN2282
1-Hexene	14	UN2370
Hexyltrichlorosilane	41	UN1784
Hydrazine, anhydrous	18E	UN2029
Hydrazine, aqueous solutions *with more than 64% hydrazine, by mass*	18E	UN2029
Hydrazine, aqueous solutions *with not more than 64% hydrazine, by mass*	19E	UN2030
Hydrazine hydrate *with not more than 64% hydrazine, by mass*	19E	UN2030
Hydrides, metal, n.o.s.	26	UN1409
Hydriodic acid, solution	39	UN1787
Hydrobromic acid, solution	39	UN1788
Hydrocarbon gases, compressed *or* non-liquefied, n.o.s.	04	UN1964
Hydrocarbon gases liquefied, n.o.s. *or* Hydrocarbon gases mixtures, liquefied, n.o.s.	04	UN1965
Hydrocarbon gases mixtures, compressed *or* non-liquefied, n.o.s.	04	UN1964
Hydrocarbon gas refills for small devices, *with relief device*	04	UN3150
Hydrochloric acid, solution or Hydrochloric acid	42	UN1789
Hydrocyanic acid, aqueous solutions	39E	NA1613
Hydrocyanic acid, aqueous solutions	39E	UN1613
Hydrocyanic acid, liquefied	05E	NA1051
Hydrofluoric acid and sulphuric acid mixtures	42	UN1786
Hydrofluoric acid, solution	42	UN1790
Hydrofluorosilicic acid	39	UN1778
Hydrogen *or* Hydrogen, compressed	04	UN1049
Hydrogen and Carbon monoxide mixture	05	UN2600
Hydrogen and methane, mixtures, compressed	04	UN2034
Hydrogen bromide, anhydrous	07	UN1048
Hydrogen chloride, anhydrous	07	UN1050
Hydrogen chloride, refrigerated liquid	07	UN2186
Hydrogen cyanide, anhydrous, stabilized	05E	UN1051

Hydrogen cyanide anhydrous, stabilized, *absorbed in a porous inert material*	18E	UN1614
Hydrogen fluoride, anhydrous	07	UN1052
Hydrogen iodide, anhydrous	07	UN2197
Hydrogen, liquefied	04	UN1966
Hydrogen peroxide and peroxyacetic acid mixtures	30	UN3149
Hydrogen peroxide, aqueous solutions	30	UN2014
Hydrogen peroxide, aqueous solutions	30	UN2984
Hydrogen peroxide, aqueous solutions, stabilized	31	UN2015
Hydrogen, refrigerated liquid	04	UN1966
Hydrogen peroxide, stabilized	31	UN2015
Hydrogen selenide, anhydrous	05	UN2202
Hydrogen sulphide *or* Hydrogen sulphide, liquefied	05	UN1053
Hydroquinone	38	UN2662
3-(2-Hydroxyethoxy)-4-pyrrolidin-1-ylbenzene-diazonium zinc chloride	22	UN3035
Hydroxylamine sulphate	39	UN2865
Hypochlorites, inorganic, n.o.s.	30	UN3212
Hypochlorite solutions	39	UN1791
Igniter for aircraft thrust device	20	UN2792
Iminobispropylamine	38	UN2269
3,3'-Iminodipropylamine	38	UN2269
Infectious substances, affecting animals *only*	43	UN2900
Infectious substances, affecting humans, n.o.s	43	UN2814
Ink, *printer's, flammable*	16	UN1210
Insecticide gases, n.o.s.	06	UN1968
Insecticide gases, toxic, n.o.s.	07	UN1967
Iodine monochloride	42	UN1792
Iodine pentafluoride	28	UN2495
2-Iodobutane	16	UN2390
Iodomethylpropanes	16	UN2391
Iodopropanes	17	UN2392
Iron mass	25	NA1383
Iron oxide, spent	25	UN1376
Iron pentacarbonyl	23E	UN1994
Iron sponge	25	NA1383
Iron sponge, spent	25	UN1376
Isobutane or Isobutane mixtures	04	UN1969
Isobutanol	17	UN1212
Isobutyl acetate	18	UN1213
Isobutyl acrylate	19P	UN2527
Isobutyl alcohol	17	UN1212
Isobutyl aldehyde	18	UN2045
Isobutylamine	18	UN1214
Isobutyl chloroformate	41	NA2742
Isobutylene	04	UN1055
Isobutyl formate	18	UN2393
Isobutyl isobutyrate	19	UN2528
Isobutyl isocyanate	40	UN2486
Isobutyl methacrylate	19EP	UN2283
Isobutyl methyl ketone peroxide	34	UN2126
Isobutyl propionate	18	UN2394
Isobutyraldehyde	18	UN2045
Isobutyric acid	17	UN2529
Isobutyric anhydride	40	UN2530
Isobutyronitrile	17	UN2284
Isobutyryl chloride	40	UN2395
Isocyanates, n.o.s.	40	UN2206

Isocyanates, n.o.s.	40	UN2207
Isocyanates, n.o.s.	40	UN2478
Isocyanates, n.o.s.	40	UN3080
Isocyanate solutions, n.o.s.	40	UN2206
Isocyanate solutions, n.o.s.	40	UN2207
Isocyanate solutions n.o.s.	40	UN2478
Isocyanate solutions, n.o.s.	40	UN3080
Isocyanatobenzotrifluorides	41	UN2285
Isoheptene	14	UN2287
Isohexene	14	UN2288
Isononanoyl peroxide	35	UN2128
Isooctane	14	UN1262
Isooctene	14	UN1216
Isopentane	14	UN1265
Isopentanoic acid	38	NA1760
Isopentenes	14	UN2371
Isophoronediamine	38	UN2289
Isophoronediisocyanate	41	UN2290
Isoprene, inhibited	18P	UN1218
Isopropanol	16	UN1219
Isopropanolamine dodecylbenzene-sulphonate	49	NA9127
Isopropenyl acetate	18P	UN2403
Isopropenylbenzene	15	UN2303
Isopropyl acetate	18	UN1220
Isopropyl acid phosphate	38	UN1793
Isopropyl acid phosphate, solid	38	UN1793
Isopropyl alcohol	16	UN1219
Isopropylamine	18	UN1221
Isopropylbenzene	19	UN1918
Isopropyl butyrate	19	UN2405
Isopropyl chloroacetate	17	UN2947
Isopropyl chloroformate	40	UN2407
Isopropyl-2-chloro-propionate	19	UN2934
Isopropyl cumyl hydroperoxide	32	UN2171
Isopropyl isobutyrate	18	UN2406
Isopropyl isocyanate	40	UN2483
Isopropyl mercaptan	16	NA2402
Isopropyl nitrate	16E	UN1222
Isopropyl peroxydicarbonate	35	UN2133
Isopropyl peroxydicarbonate	35	UN2134
Isopropyl propionate	18	UN2409
Isosorbide dinitrate mixture	20	UN2907
Kerosene	15	UN1223
Ketones, liquid, n.o.s.	14	UN1224
Krypton *or* Krypton, compressed	08	UN1056
Krypton, refrigerated liquid	08	UN1970
Lacquer chips, wet	14	NA1263
Lauroyl peroxide	33	UN2124
Lauroyl peroxide	33	UN2893
Lead acetate	36	UN1616
Lead arsenates	36	UN1617
Lead arsenites	36	UN1618
Lead chloride	36	NA2291
Lead compounds, soluble, n.o.s.	36	UN2291
Lead cyanide	36	UN1620
Lead dioxide	30	UN1872
Lead dross	39	NA1794
Lead fluoborate	36	NA2291
Lead fluoride	39	NA2811
Lead nitrate	30	UN1469
Lead perchlorate	30	UN1470
Lead peroxide	30	UN1872
Lead phosphite dibasic	37	UN2989
Lead sulphate	39	UN1794
Lead sulphide	36	NA2291
Life-saving appliances, not self-inflating	49	UN3072
Life-saving appliances, self-inflating	49	UN2990

Lighter fluid	14	UN1226
Lighters (cigarettes), *containing flammable gas*	04	UN1057
Lighters for cigars, cigarettes etc., *with flammable gas*	04	UN1057
Lighters for cigars, cigarettes etc. *with lighter fluid*	14	NA1226
Lighters for cigars, cigarettes etc. *with lighter fluid*	14	UN1226
Lighter refills (cigarettes), *containing flammable gas*	04	UN1057
Lindane	36	NA2761
Liquefied gases, n.o.s.	06	UN1956
Liquefied gas, n.o.s.	06	UN3163
Liquefied gases, flammable, n.o.s.	04	UN1954
Liquefied gas, flammable, n.o.s.	04	UN3161
Liquefied gases, *nonflammable*	08	UN1058
Liquefied gas, oxidizing, n.o.s.	10	UN3157
Liquefied gases, toxic, n.o.s.	07	UN1955
Liquefied gas, toxic, n.o.s.	07	UN3162
Liquefied gas, toxic, flammable, n.o.s.	05	UN3160
Liquefied or Compressed gases, n.o.s.	06	UN1956
Liquefied or Compressed gases, flammable, n.o.s.	04	UN1954
Liquefied petroleum gas, n.o.s.	04	UN1075
Lithium	26	UN1415
Lithium, metal	26	UN1415
Lithium acetylide-ethylenediamine complex	26	NA2813
Lithium alkyls	25	UN2445
Lithium aluminum hydride	26	UN1410
Lithium aluminum hydride, ethereal	26	UN1411
Lithium amide	27	UN1412
Lithium batteries	26	UN3090
Lithium batteries contained in equipment	26	UN3091
Lithium borohydride	26	UN1413
Lithium chromate	49	NA9134
Lithium ferrosilicon	27	UN2830
Lithium hydride	26	UN1414
Lithium hydride, fused solid	26	UN2805
Lithium hydroxide, monohydrate	39	UN2680
Lithium hydroxide, solution	39	UN2679
Lithium hypochlorite, dry	30	UN1471
Lithium hypochlorite mixtures	30	UN1471
Lithium in cartridges	26	UN1415
Lithium nitrate	30	UN2722
Lithium nitride	26	UN2806
Lithium peroxide	31	UN1472
Lithium silicon	26	UN1417
London purple	36	UN1621
LPG	04	UN1075
Magnesium	26	UN1869
Magnesium alkyls	25	UN3053
Magnesium alloys	26	UN1869
Magnesium alloys powder	26	UN1418
Magnesium aluminum phosphide	27	UN1419
Magnesium arsenate	36	UN1622
Magnesium bromate	29	UN1473
Magnesium chlorate	30	UN2723
Magnesium chloride and chlorate mixtures	30	UN1459
Magnesium diamide	25	UN2004
Magnesium diphenyl	25	UN2005

Magnesium fluorosilicate	36	UN2853
Magnesium granules, coated	26	UN2950
Magnesium hydride	26	UN2010
Magnesium nitrate	30	UN1474
Magnesium perchlorate	30	UN1475
Magnesium peroxide	30	UN1476
Magnesium phosphide	27	UN2011
Magnesium powder	26	UN1418
Magnesium scrap	26	UN1869
Magnesium silicide	26	UN2624
Magnetized material	49	UN2807
Malathion	37	NA2783
Maleic acid	41	NA2215
Maleic acid	41	UN2215
Maleic anhydride	41	UN2215
Malononitrile	38	UN2647
Maneb	25	UN2210
Maneb, *stabilized against self-heating*	25	UN2968
Maneb preparations	25	UN2210
Maneb preparations, *stabilized against self-heating*	25	UN2968
Manganese nitrate	30	UN2724
Manganese resinate	20	UN1330
Matches, fusee	20	UN2254
Matches, safety	20	UN1944
Matches, "strike anywhere"	20	UN1331
Matches, wax "vesta"	20	UN1945
Medicines, n.o.s.	36	UN1851
Medicines, corrosive, liquid, n.o.s.	39	NA1760
Medicines, corrosive, solid, n.o.s.	39	NA1759
Medicines, flammable, liquid, n.o.s.	14	NA1993
Medicines, flammable, solid, n.o.s.	20	NA1325
Medicines, liquid, flammable, poisonous, n.o.s.	16	UN3248
Medicines, liquid, poisonous, n.o.s.	36	UN1851
Medicines, oxidizing substances, solid, n.o.s.	30	NA1479
Medicines, poisonous, liquid, n.o.s.	38	NA2810
Medicines, poisonous, solid, n.o.s.	39	NA2811
Medicines, solid, poisonous, n.o.s.	36	UN3249
p-Menthane hydroperoxide	34	UN2125
p-Menthyl hydroperoxide	34	UN2125
Mercaptans, liquid, n.o.s.	16	UN1228
Mercaptans, liquid, n.o.s.	16	UN3071
Mercaptan mixtures, liquid, n.o.s.	16	UN1228
Mercaptan mixtures, liquid, n.o.s.	16	UN3071
Mercuric acetate	36	UN1629
Mercuric ammonium chloride	36	UN1630
Mercuric arsenate	36	UN1623
Mercuric benzoate	39	UN1631
Mercuric bromide	39	UN1634
Mercuric chloride	39	UN1624
Mercuric cyanide	39	UN1636
Mercuric iodide	36	UN1638
Mercuric iodide, solution	36	UN1638
Mercuric nitrate	30	UN1625
Mercuric oleate	36	UN1640
Mercuric oxide	36	UN1641
Mercuric oxycyanide, desensitized	36E	UN1642
Mercuric potassium cyanide	42	UN1626
Mercuric potassium iodide	36	UN1643
Mercuric salicylate	36	UN1644

Mercuric subsulphate, solid	36	NA2025
Mercuric sulphate	36	UN1645
Mercuric thiocyanate	36	UN1646
Mercurous acetate	36	UN1629
Mercurous bromide	39	UN1634
Mercurous gluconate	36	UN1637
Mercurous iodide	36	UN1638
Mercurous nitrate	30	UN1627
Mercurous oxide, black	36	UN1641
Mercurous sulphate	36	UN1628
Mercury	50	UN2809
Mercury acetate	36	UN1629
Mercury ammonium chloride	36	UN1630
Mercury based pesticides, liquid, flammable, toxic n.o.s.	16	UN2778
Mercury based pesticides, liquid, toxic, n.o.s.	36	UN3012
Mercury based pesticides liquid, toxic, flammable, n.o.s.	17	UN3011
Mercury based pesticides, solid, toxic, n.o.s.	36	UN2777
Mercury benzoate	39	UN1631
Mercury bisulphate	36	UN1633
Mercury bromides	39	UN1634
Mercury compounds, liquid, n.o.s.	36	UN2024
Mercury compounds, solid, n.o.s.	36	UN2025
Mercury cyanide	39	UN1636
Mercury gluconate	36	UN1637
Mercury iodide	36	UN1638
Mercury iodide, solution	36	UN1638
Mercury nucleate	36	UN1639
Mercury oleate	36	UN1640
Mercury oxide	36	UN1641
Mercury oxycyanide, desensitized	36	UN1642
Mercury potassium iodide	36	UN1643
Mercury salicylate	36	UN1644
Mercury sulphate	36	UN1645
Mercury thiocyanate	36	UN1646
Mesityl oxide	19	UN1229
Metal alkyl, solution, n.o.s	25	NA9195
Metal alkyl halides, n.o.s.	26	UN3049
Metal alkyl hydrides, n.o.s.	26	UN3050
Metal alkyls, n.o.s	25	UN2003
Metal aryl halides, n.o.s.	26	UN3049
Metal aryl hydrides, n.o.s.	26	UN3050
Metal aryls, n.o.s	25	UN2003
Metal catalyst, wetted *with a visible excess of liquid*	52E	UN1378
Metal catalyst, wetted *with not less than 40% water or suitable liquid, by mass, finely divided, activated or spent*	52E	UN1378
Metal catalyst, dry	52E	UN2881
Metaldehyde	20	UN1332
Metal hydrides flammable, n.c.s.	52	UN3182
Metal hydrides, water reactive, n.o.s	26	UN1409
Metallic substances, water-reactive, n.o.s.	26	UN3208
Metallic substances, water-reactive, self-heating, n.o.s.	26	UN3209
Metal powders, flammable, n.o.s.	52	UN3089
Metal salts of organic compounds, flammable, n.o.s.	20	UN3181
Methacrylaldehyde	19P	UN2396
Methacrylic acid, inhibited	38P	UN2531
Methacrylonitrile, inhibited	16P	UN3079
Methallyl alcohol	17	UN2614

Methane	04	UN1971
Methane, compressed	04	UN1971
Methane, refrigerated liquid	04	UN1972
Methane and hydrogen mixtures, compressed	04	UN2034
Methanesulphonyl chloride	41	UN3246
Methanol	16	UN1230
Methoxymethylisocyanate	40	UN2605
4-Methoxy-4-methylpentan-2-one	15	UN2293
1-Methoxy-2-propanol	16	UN3092
Methyl acetate	18	UN1231
Methyl acetone	14	UN1232
Methyl acetylene and propadiene mixtures, stabilized	04P	UN1060
Methyl acrylate, inhibited	18P	UN1919
Methylal	14	UN1234
Methyl alcohol	16	UN1230
Methyl allyl chloride	16P	UN2554
Methyl aluminum sesquibromide	25	UN1926
Methyl aluminum sesquichloride	25	UN1927
Methylamine, anhydrous	05	UN1061
Methylamine, aqueous solution	18	UN1235
Methylamyl acetate	19	UN1233
Methyl amyl ketone	15	UN1110
N-Methyl aniline	38	UN2294
Methyl benzoate	38	UN2938
alpha-Methylbenzyl alcohol	38	UN2937
Methyl bromide	07	UN1062
Methyl bromide and chloropicrin mixtures	07	UN1581
Methyl bromide and ethylene dibromide mixtures, liquid	36	UN1647
Methyl bromoacetate	41	UN2643
3-Methyl butan-2-one	14	UN2397
2-Methyl-1-butene	14	UN2459
2-Methyl-2-butene	14	UN2460
3-Methyl-1-butene	14	UN2561
N-Methylbutylamine	18	UN2945
Methyl-tert-butylether	14	UN2398
Methyl butyrate	18	UN1237
Methyl chloride	05	UN1063
Methyl chloride and chloropicrin mixtures	05	UN1582
Methyl chloride and methylene chloride mixtures	05	UN1912
Methyl chloroacetate	40	UN2295
Methyl chloroformate	40	UN1238
Methylchloromethyl ether	18	UN1239
Methyl-2-chloropropionate	19	UN2933
Methylchlorosilane	05	UN2534
Methyl cyanide	17	UN1643
Methyl cyclohexane	14	UN2296
Methyl cyclohexanols	17	UN2617
Methyl cyclohexanone	15	UN2297
Methylcyclohexanone peroxide(s)	35	UN3046
Methyl cyclopentane	14	UN2298
Methyl dichloroacetate	40	UN2299
Methyl dichloroarsine	37	NA1556
Methyldichlorosilane	25	UN1242
Methylene chloride	39	UN1593
Methylene chloride and methyl chloride mixtures	05	UN1912
Methyl ethyl ether	04	UN1039
Methyl ethyl ketone	14	UN1193
Methyl ethyl ketone peroxide(s)	33	UN2127
Methyl ethyl ketone peroxide(s)	34	UN2550
Methyl ethyl ketone peroxide(s)	34	UN2563

Methyl ethyl ketone peroxide(s)	34	UN3068
2-Methyl-5-ethyl pyridine	38	UN2300
Methyl fluoride	04	UN2454
Methyl formate	18	UN1243
2-Methylfuran or Methylfuran	14	UN2301
5-Methylhexan-2-one	15	UN2302
Methylhydrazine	25	UN1244
Methyl iodide	36	UN2644
Methyl isobutyl carbinol	17	UN2053
Methyl isobutyl ketone	14	UN1245
Methyl isobutyl ketone peroxide	34	UN2126
Methyl isocyanate	40	UN2480
Methyl isopropenyl ketone, inhibited	14P	UN1246
Methyl isothiocyanate	17	UN2477
Methyl isovalerate	18	UN2400
Methyl magnesium bromide in ethyl ether	25	UN1928
Methyl mercaptan	05	UN1064
Methyl methacrylate monomer, inhibited	18P	UN1247
Methylmorpholine	19	UN2535
Methyl nitrite	05	UN2455
Methyl orthosilicate	40	UN2606
Methyl parathion, liquid	37	NA3018
Methyl parathion, solid	37	NA2783
Methylpentadiene	14	UN2461
Methyl pentane	14	UN2462
2-Methylpentan-2-ol	17	UN2560
Methylphenyldichlorosilane	40	UN2437
Methyl phosphonic dichloride	41	NA9206
Methyl phosphonothioic dichloride, anhydrous	41	NA1760
Methyl phosphonous dichloride, pyrophoric liquid	25	NA2845
1-Methylpiperidine	18	UN2399
Methyl propionate	18	UN1248
Methyl propyl ether	14	UN2612
Methyl propyl ketone	14	UN1249
Methyltetrahydrofuran	14	UN2536
Methyl trichloroacetate	41	UN2533
Methyltrichlorosilane	40	UN1250
alpha-Methyl valeraldehyde	18	UN2367
Methyl vinyl ketone, inhibited	14P	UN1251
Mevinphos	37	NA2783
Mevinphos mixture, dry	37	NA2783
Mevinphos mixture, liquid	37	NA2783
Mexacarbate	36	NA2757
Mine rescue equipment containing carbon dioxide	06	NA1956
Molybdenum pentachloride	41	UN2508
Monochloroacetone, stabilized	19E	UN1695
Monoethanolamine	38	UN2491
Monoethanolamine solutions	38	UN2491
Morpholine	19	UN2054
Motor fuel antiknock mixtures	16E	UN1649
Motor spirit	14	UN1203
Motor spirit including gasoline *or* petrol	14	UN1203
Muriatic acid	42	UN1789
Musk xylene	21	UN2956
Naphtha	14	UN2553
Naphtha, petroleum	14	UN1255
Naphtha, solvent	14	UN1256
Naphthalene, crude	20	UN1334
Naphthalene, molten	20	UN2304
Naphthalene, refined	20	UN1334
Naphthenic acid	49	NA9137
alpha-Naphthylamine	38	UN2077
beta-Naphthylamine	38	UN1650
Naphthylthiourea	38	UN1651
Naphthylurea	38	UN1652

Natural gas, compressed (with high methane content)	04	UN1971
Natural gas, refrigerated liquid (with high methane content)	04	UN1972
Natural gasoline	14	UN1257
Neohexane	14	UN1208
Neon or Neon, compressed	08	UN1065
Neon, refrigerated liquid	08	UN1913
Nickel ammonium sulphate	49	NA9138
Nickel carbonyl	16E	UN1259
Nickel catalyst, dry	52E	UN2881
Nickel catalyst, wetted	52E	UN1378
Nickel chloride	36	NA9139
Nickel cyanide	36	UN1653
Nickel hydroxide	39	NA9140
Nickel nitrate	29	UN2725
Nickel nitrite	29	UN2726
Nickel sulphate	39	NA9141
Nicotine	36	UN1654
Nicotine compounds, liquid, n.o.s.	36	UN1655
Nicotine compounds, liquid, n.o.s.	36	UN3144
Nicotine compounds, solid, n.o.s.	36	UN1655
Nicotine hydrochloride *or* Nicotine hydrochloride, solution	36	UN1656
Nicotine preparations, liquid, n.o.s.	36	UN1655
Nicotine preparations, liquid, n.o.s.	36	UN3144
Nicotine preparations, solid, n.o.s.	36	UN1655
Nicotine salicylate	36	UN1657
Nicotine sulphate, liquid	36	UN1658
Nicotine sulphate, solid	36	UN1658
Nicotine sulphate, solution	36	UN1658
Nicotine tartrate	36	UN1659
Nitrates, inorganic, n.o.s.	30	UN1477
Nitrates, inorganic, aqueous solutions, n.o.s.	30	UN3218
Nitrating acid mixtures	42	UN1796
Nitrating acid mixtures, spent	42	UN1826
Nitric acid, *other than red fuming*	42	UN2031
Nitric acid (red), fuming	42	UN2032
Nitric oxide	12	UN1660
Nitric oxide and dinitrogen tetroxide, mixtures	12	UN1975
Nitric oxide and nitrogen dioxide, mixtures	12	UN1975
Nitric oxide and nitrogen tetroxide, mixtures	12	UN1975
Nitrites, inorganic, n.o.s.	30	UN2627
Nitrites, inorganic, aqueous solutions, n.o.s.	30	UN3219
Nitroanilines	38	UN1661
Nitroanisole	37	UN2730
Nitroanisole, liquid	37	UN2730
Nitroanisole, solid	37	UN2730
Nitrobenzene	37	UN1662
Nitrobenzene, liquid	37	UN1662
Nitrobenzenesulphonic acid	38E	UN2305
Nitrobenzotrifluorides	37	UN2306
Nitrobromobenzene, liquid or solid	37	UN2732
Nitrocellulose solution, flammable	14E	UN2059
Nitrocellulose solution, flammable	15E	UN2060
Nitrocellulose with alcohol	20	UN2556
Nitrocellulose with plasticizing substance	20	UN2557
Nitrocellulose with water	20	UN2555
Nitrochlorobenzenes	37E	UN1578

3-Nitro-4-chlorobenzotrifluoride	37	UN2307
Nitrocresols	38	UN2446
Nitroethane	17E	UN2842
Nitrogen, compressed or Nitrogen	08	UN1066
Nitrogen, pressurized liquid	08	UN1977
Nitrogen, refrigerated liquid	08	UN1977
Nitrogen and Rare gases mixtures	08	UN1981
Nitrogen dioxide, liquefied	12	UN1067
Nitrogen dioxide and nitric oxide mixtures	12	UN1975
Nitrogen dioxide liquid	12	NA1067
Nitrogen dioxide liquid	12	UN1067
Nitrogen oxides, n.o.s.	12	UN1067
Nitrogen peroxide, liquid	12	NA1067
Nitrogen tetroxide and nitric oxide mixtures	12	UN1975
Nitrogen trifluoride	12	UN2451
Nitrogen trioxide	12	UN2421
Nitroglycerin, solution in alcohol	02	UN1204
Nitroglycerin, solution in alcohol	02	UN3064
Nitroguanidine, wetted	02	UN1336
Nitrohydrochloric acid	42	UN1798
Nitromethane	17E	UN1261
Nitronaphthalene	20	UN2538
Nitrophenols	38	UN1663
Nitropropanes	17E	UN2608
p-Nitrosodiethylaniline	23	——
p-Nitrosodimethylaniline	23	UN1369
Nitrostarch, wetted	02	UN1337
Nitrosyl chloride	07	UN1069
Nitrosylsulphuric acid	42	UN2308
Nitrotoluenes	37E	UN1664
Nitrotoluidines (mono)	38	UN2660
Nitrous oxide, compressed *or* Nitrous oxide	10	UN1070
Nitrous oxide, refrigerated liquid	10	UN2201
Nitrous oxide and carbon dioxide mixtures	06	UN1015
Nitroxylenes	37	UN1665
Nonanes	15	UN1920
Nonyltrichlorosilane	41	UN1799
2,5-Norbornadiene	14	UN2251
Octadecyltrichlorosilane	41	UN1800
Octadiene	14P	UN2309
Octafluorobut-2-ene	06	UN2422
Octafluorocyclobutane	06	UN1976
Octafluoropropane	06	UN2424
Octanes	14	UN1262
n-Octanoyl peroxide	35	UN2129
Octyl aldehydes, *flammable*	19	UN1191
tert-Octyl hydroperoxide	32	UN2160
t-Octyl mercaptan	17	UN3023
tert-Octyl mercaptan	17	UN3023
tert-Octyl peroxy-2-ethylhexanoate	35	UN2161
Octyltrichlorosilane	41	UN1801
Oil gas	05	UN1071
Oleum	42	UN1831
Organic compounds of arsenic, liquid, n.o.s.	37	UN1556
Organic compounds of arsenic, solid, n.o.s.	37	UN1557
Organic peroxide, liquid *or* solution, stable, n.o.s.	33	NA9183
Organic peroxide, solid, stable, n.o.s.	33	NA9187
Organic peroxide type B, liquid	33	UN3101

Organic peroxide type B, liquid, temperature controlled	35	UN3111
Organic peroxide type B, solid	33	UN3102
Organic peroxide type B, solid, temperature controlled	35	UN3112
Organic peroxide type C, liquid	32	UN3103
Organic peroxide type C, liquid, temperature controlled	35	UN3113
Organic peroxide type C, solid	32	UN3104
Organic peroxide type C, solid, temperature controlled	35	UN3114
Organic peroxide type D, liquid	32	UN3105
Organic peroxide type D, liquid, temperature controlled	35	UN3115
Organic peroxide type D, solid	32	UN3106
Organic peroxide type D, solid, temperature controlled	35	UN3116
Organic peroxide type E, liquid	32	UN3107
Organic peroxide type E, liquid, temperature controlled	35	UN3117
Organic peroxide type E, solid	32	UN3108
Organic peroxide type E, solid, temperature controlled	35	UN3118
Organic peroxide type F, liquid	32	UN3109
Organic peroxide type F, liquid, temperature controlled	35	UN3119
Organic peroxide type F, solid	32	UN3110
Organic peroxide type F, solid, temperature controlled	35	UN3120
Organic peroxides, mixtures	33	UN2756
Organic peroxides, samples, n.o.s	33	UN2255
Organic peroxides, trial quantities, n.o.s.	33	UN2899
Organic phosphate, liquid	37	NA2783
Organic phosphate, solid	37	NA2783
Organic phosphate compound, liquid	37	NA2783
Organic phosphate compound, solid	37	NA2783
Organic phosphate compound mixed with compressed gas	07	NA1955
Organic phosphate compound mixture, liquid	37	NA2783
Organic phosphate compound mixture, solid *or* dry	37	NA2783
Organic phosphate mixed with compressed gas	07	NA1955
Organic phosphate mixture, liquid	37	NA2783
Organic phosphate mixture, solid *or* dry	37	NA2783
Organic phosphorus compound, liquid	37	NA2783
Organic phosphorus compound, solid	37	NA2783
Organic phosphorus compound mixed with compressed gas	07	NA1955
Organic phosphorus compound mixture, liquid	37	NA2783

Organic phosphorus compound mixture, solid or dry	37	NA2783
Organochlorine pesticides, liquid, flammable, toxic, n.o.s.	18	UN2762
Organochlorine pesticides, liquid, toxic, n.o.s.	36	UN2996
Organochlorine pesticides, liquid, toxic, flammable, n.o.s.	19	UN2995
Organochlorine pesticides, solid, toxic, n.o.s.	36	UN2761
Organometallic compounds, water-reactive, flammable, n.o.s.	26	UN3207
Organometallic dispersions, water-reactive, flammable, n.o.s.	26	UN3207
Organometallic solutions, water-reactive, flammable, n.o.s.	26	UN3207
Organophosphorus pesticides, liquid, flammable, toxic, n.o.s.	16	UN2784
Organophosphorus pesticides, liquid, toxic, n.o.s.	37	UN3018
Organophosphorus pesticides, liquid, toxic, flammable, n.o.s.	17	UN3017
Organophosphorus pesticides, solid, toxic, n.o.s.	37	UN2783
Organotin compounds, n.o.s.	38	UN2788
Organotin compounds, solid, n.o.s.	38	UN3146
Organotin pesticides, liquid, flammable, toxic, n.o.s.	16	UN2787
Organotin pesticides, liquid, toxic, n.o.s.	38	UN3020
Organotin pesticides, liquid, toxic, flammable, n.o.s.	17	UN3019
Organotin pesticides, solid, toxic, n.o.s.	38	UN2786
Osmium tetroxide	39	UN2471
Other regulated substances, liquid, n.o.s.	49	NA3082
Other regulated substances, solid, n.o.s.	49	NA3077
Oxalates, water soluble	38	UN2449
Oxidizer, liquid, corrosive n.o.s.	30	NA9193
Oxidizer, liquid, poisonous, n.o.s.	30	NA9199
Oxidizer, solid, corrosive, n.o.s.	30	NA9194
Oxidizer, solid, poisonous, n.o.s.	30	NA9200
Oxidizing liquid, n.o.s.	30	UN3139
Oxidizing liquid, corrosive, n.o.s.	30	UN3098
Oxidizing liquid, poisonous, n.o.s.	30	UN3099
Oxidizing solid, n.o.s.	30	UN1479
Oxidizing solid, corrosive, n.o.s.	30	UN3085
Oxidizing solid, flammable, n.o.s.	30	UN3137
Oxidizing solid, poisonous, n.o.s.	30	UN3087
Oxidizing solid, self-heating, n.o.s.	30	UN3100
Oxidizing solid, water-reactive, n.o.s.	28	UN3121
Oxidizing substances, n.o.s.	30	UN1479

Oxidizing substances, liquid, n.o.s.	30	UN3139
Oxidizing substances, liquid, corrosive, n.o.s.	30	UN3098
Oxidizing substances, liquid, poisonous, n.o.s.	30	UN3099
Oxidizing substances, solid, corrosive, n.o.s.	30	UN3085
Oxidizing substances, solid, flammable, n.o.s.	30	UN3137
Oxidizing substances, solid, poisonous, n.o.s.	30	UN3087
Oxidizing substances, solid, self-heating, n.o.s.	30	UN3100
Oxidizing substances, solid, which in contact with water emit flammable gases, n.o.s.	28	UN3121
Oxygen, compressed or Oxygen	11	UN1072
Oxygen, pressurized liquid	11	UN1073
Oxygen, refrigerated liquid	11	UN1073
Oxygen and carbon dioxide mixtures	10	UN1014
Oxygen and rare gases mixtures	10	UN1980
Oxygen difluoride	12	UN2190
Paint	14	UN1263
Paint	38	UN3066
Paint related material	14	UN1263
Paint related material	38	UN3066
Paper, unsaturated oil treated	20	UN1379
Paraformaldehyde	20	UN2213
Paraldehyde	19	UN1264
Parathion	37	NA2783
Parathion, liquid	37	NA2783
Parathion(s) and compressed gas mixture	07	NA1967
PCB	51	UN2315
Pelargonyl peroxide	35	UN2130
Pentaborane	25	UN1380
Pentachloroethane	36	UN1669
Pentachlorophenol	39	UN3155
Pentafluoroethane	06	UN3220
Pentamethylheptane	15	UN2286
Pentan-2,4-dione	15	UN2310
n-Pentane or Pentane	14	UN1265
1-Pentol	19P	UN2705
Peracetic acid, solution	34	NA2131
Percarbonates, inorganic, n.o.s.	29	UN3217
Perchlorates, inorganic, n.o.s.	30	UN1481
Perchlorates, inorganic, aqueous solutions, n.o.s.	30	UN3211
Perchloric acid	30	UN1802
Perchloric acid	31	UN1873
Perchloroethylene	39	UN1897
Perchloromethyl mercaptan	42	UN1670
Perchloryl fluoride	12	UN3083
Perfluoro-2-butene	06	NA2422
Perfluoroethylvinyl ether	04	UN3154
Perfluoromethylvinyl ether	04	UN3153
Perfumery products	14	UN1266
Permanganates, inorganic, n.o.s.	31	UN1482
Permanganates, inorganic, aqueous solutions, n.o.s.	30	UN3214
Peroxides, inorganic, n.o.s.	33	UN1483
Peroxyacetic acid	34	UN2131
Peroxyacetic acid	34	UN3045
Persulphates, inorganic, n.o.s.	29	UN3215
Persulphates, inorganic, aqueous solutions, n.o.s.	29	UN3216
Pesticides liquid, flammable, toxic, n.o.s.	16	UN3021
Pesticides, liquid, toxic, n.o.s.	36	UN2902

Pesticides liquid, toxic, flammable, n.o.s.	17	UN2903
Pesticides, solid, toxic, n.o.s.	36	UN2588
Petrol	14	UN1203
Petroleum crude oil	14	UN1267
Petroleum distillates, n.o.s.	14	UN1268
Petroleum ether	14	UN1271
Petroleum gases, liquefied, n.o.s.	04	UN1075
Petroleum naphtha	14	UN1255
Petroleum oil	14	UN1270
Petroleum spirit	14	UN1271
Phenacyl bromide	38	UN2645
Phencapton	37	NA2783
Phenetidines	38	UN2311
Phenol	38	UN1671
Phenol, molten	38	UN2312
Phenol, solid	38	UN1671
Phenol solutions	38	UN2821
Phenolsulphonic acid, liquid	38	UN1803
Phenoxy pesticides, liquid, flammable, toxic, n.o.s.	16	UN2766
Phenoxy pesticides, liquid, toxic, n.o.s.	37	UN3000
Phenoxy pesticides, liquid, toxic, flammable, n.o.s.	17	UN2999
Phenoxy pesticides, solid, toxic, n.o.s.	37	UN2765
Phenylacetonitrile, liquid	37	UN2470
Phenylacetyl chloride	41	UN2577
Phenylcarbylamine chloride	36	UN1672
Phenylchloroformate	41	UN2746
Phenyldichloroarsine	37	NA1556
Phenylenediamines	38	UN1673
Phenylhydrazine	38	UN2572
Phenyl isocyanate	40	UN2487
Phenyl mercaptan	16	UN2337
Phenylmercuric acetate	36	UN1674
Phenylmercuric compounds, n.o.s.	36	UN2026
Phenylmercuric hydroxide	36	UN1894
Phenylmercuric nitrate	36	UN1895
Phenyl phosphorus dichloride	41	UN2798
Phenyl phosphorus thiodichloride	41	UN2799
Phenyltrichlorosilane	41	UN1804
Phenyl urea pesticides, liquid, flammable, toxic, n.o.s.	16	UN2768
Phenyl urea pesticides, liquid, toxic, n.o.s.	36	UN3002
Phenyl urea pesticides, liquid, toxic, flammable, n.o.s.	17	UN3001
Phenyl urea pesticides, solid, toxic, n.o.s.	36	UN2767
Phosgene	07	UN1076
9-Phosphabicyclononanes	23	UN2940
Phosphine	13	UN2199
Phosphoric acid	39	UN1805
Phosphorous acid, ortho	39	UN2834
Phosphorus, amorphous *or* Phosphorus, amorphous, red	20	UN1338
Phosphorus, white *or* yellow, dry *or* under water or in solution	24	UN1381
Phosphorus anhydride	42	UN1807
Phosphorus heptasulphide	27	UN1339
Phosphorus oxybromide	42	UN1939
Phosphorus oxybromide, molten	42	UN2576
Phosphorus oxychloride	42	UN1810
Phosphorus pentabromide	42	UN2691
Phosphorus pentachloride	42	UN1806
Phosphorus pentafluoride	07	UN2198
Phosphorus pentasulphide	27	UN1340

Phosphorus pentoxide	42	UN1807
Phosphorus sesquisulphide	25	UN1341
Phosphorus tribromide	42	UN1808
Phosphorus trichloride	42	UN1809
Phosphorus trioxide	23	UN2578
Phosphorus trisulphide	40	UN1343
Phosphorus, white, molten	24	UN2447
Phthalic anhydride	41	UN2214
Phthalimide derivative pesticides, liquid, flammable, toxic, n.o.s.	16	UN2774
Phthalimide derivative pesticides, liquid, toxic, n.o.s.	36	UN3008
Phthalimide derivative pesticides, liquid, toxic, flammable, n.o.s.	17	UN3007
Phthalimide derivative pesticides, solid, toxic, n.o.s.	36	UN2773
Picolines	18	UN2313
Picric acid, wet	02	NA1344
Picrite, wetted	02	UN1336
Pinane hydroperoxide	34	UN2162
Pinanyl hydroperoxide	34	UN2162
Pindone, liquid or solid	36	UN2472
Pinene or alpha-Pinene	14	UN2368
Pine oil	17	UN1272
Piperazine	38	UN2579
Piperidine	19	UN2401
Plastic, nitrocellulose based, spontaneously combustible, n.o.s.	23	UN2006
Plastic, nitrocellulose base, self-heating, n.o.s.	23	UN2006
Plutonium nitrate, solution	44	NA9185
Poisonous liquid, n.o.s.	38	UN2810
Poisonous liquid, corrosive, n.o.s.	39	UN2927
Poisonous liquid, flammable, n.o.s.	17	UN2929
Poisonous liquid, oxidizing, n.o.s.	30	UN3122
Poisonous liquid, water-reactive, n.o.s.	26	UN3123
Poisonous liquid, which in contact with water emit flammable gases, n.o.s.	26	UN3123
Poisonous solid, n.o.s.	39	UN2811
Poisonous solid, corrosive, n.o.s.	39	UN2928
Poisonous solid, flammable, n.o.s.	20	UN2930
Poisonous solid, oxidizing, n.o.s.	30	UN3086
Poisonous solid, self-heating, n.o.s.	23	UN3124
Poisonous solid, water-reactive, n.o.s	26	UN3125
Poisonous solid, which in contact with water emit flammable gases, n.o.s	26	UN3125
Polyalkylamines, n.o.s	18	UN2733
Polyalkylamines, n.o.s	18	UN2734
Polyalkylamines, n.o.s	38	UN2735
Polychlorinated biphenyls	51	UN2315
Polyester resin kits	32	NA2255
Polyhalogenated biphenyls, liquid	51	UN3151
Polyhalogenated biphenyls, solid	51	UN3152
Polyhalogenated terphenyls, liquid	51	UN3151
Polyhalogenated terphenyls, solid	51	UN3152
Polymeric beads, expandable, *evolving flammable vapour*	20	UN2211
Polystyrene beads, expandable	20	UN2211

Potassium	26	UN2257
Potassium, metal	26	UN2257
Potassium, metal alloys	26	UN1420
Potassium, metal liquid alloy	26	UN1420
Potassium arsenate	36	UN1677
Potassium arsenite	36	UN1678
Potassium azide	41E	NA9056
Potassium bifluoride	39	UN1811
Potassium borohydride	26	UN1870
Potassium bromate	29	UN1484
Potassium chlorate	30	UN1485
Potassium chlorate, solution	29	UN2427
Potassium chromate	49	NA9142
Potassium cuprocyanide	42	UN1679
Potassium cyanide, solid	42	UN1680
Potassium cyanide, solution	42	UN1680
Potassium dichloro-s-triazinetrione, dry	30	NA2465
Potassium dichromate	30	NA1479
Potassium dithionite	25	UN1929
Potassium fluoride	39	UN1812
Potassium fluoride, solution	39	UN1812
Potassium fluoroacetate	36	UN2628
Potassium fluorosilicate	36	UN2655
Potassium hydrogen sulphate	39	UN2509
Potassium hydrosulphite	25	UN1929
Potassium hydroxide, solid	39	UN1813
Potassium hydroxide, solution	39	UN1814
Potassium metabisulphite	39	NA2693
Potassium metavanadate	36	UN2864
Potassium monoxide	39	UN2033
Potassium nitrate	30	UN1486
Potassium nitrate and sodium nitrate mixtures	30	UN1499
Potassium nitrate and sodium nitrite mixtures	30	UN1487
Potassium nitrite	29	UN1488
Potassium oxide	39	UN2033
Potassium perchlorate	30	UN1489
Potassium permanganate	30	UN1490
Potassium peroxide	28	UN1491
Potassium persulphate	29	UN1492
Potassium phosphide	27	UN2012
Potassium sodium alloys	26	UN1422
Potassium sulphide *or* Potassium sulphide, anhydrous	23	UN1382
Potassium sulphide, hydrated	40	UN1847
Potassium superoxide	30	UN2466
Printing ink, flammable	16	UN1210
Propadiene, inhibited	04P	UN2200
Propadiene and methyl acetylene mixtures, stabilized	04P	UN1060
Propane	04	UN1978
Propane-Ethane mixture, refrigerated liquid	04	NA1961
Propane mixtures	04	UN1978
Propanethiols	16	UN2402
n-Propanol	16	UN1274
Propargyl alcohol	16	NA1986
Propionaldehyde	18	UN1275
Propionic acid	19	UN1848
Propionic anhydride	41	UN2496
Propionitrile	17	UN2404
Propionyl chloride	40	UN1815
Propionyl peroxide	35	UN2132
n-Propyl acetate *or* Propyl acetate	18	UN1276
normal Propyl alcohol	16	UN1274
Propylamine	18	UN1277

n-Propyl benzene	15	UN2364
Propyl chloride	16	UN1278
n-Propyl chloroformate	40	UN2740
Propylene	04P	UN1077
Propylene chlorohydrin	17	UN2611
1,2-Propylenediamine	19	UN2258
Propylene dichloride	18	UN1279
Propyleneimine, inhibited	19P	UN1921
Propylene oxide	14P	UN1280
Propylene oxide and ethylene oxide mixtures	16P	UN2983
Propylene tetramer	15	UN2850
Propyl formates	18	UN1281
n-Propyl isocyanate	40	UN2482
Propyl mercaptan	16	NA2402
n-Propyl nitrate	16	UN1865
Propyltrichlorosilane	40	UN1816
Pyridine	19	UN1282
Pyrophoric alloys, n.o.s	23	UN1383
Pyrophoric liquid, n.o.s.	23	UN2845
Pyrophoric liquid, inorganic, n.o.s.	23	UN3194
Pyrophoric liquid, organic, n.o.s.	23	UN2845
Pyrophoric metals, n.o.s	23	UN1383
Pyrophoric organometallic compounds, n.o.s.	23	UN3203
Pyrophoric solid, n.o.s.	23	UN2846
Pyrophoric solid, inorganic, n.o.s.	23	UN3200
Pyrophoric solid, organic, n.o.s.	23	UN2846
Pyrosulphuryl chloride	42	UN1817
Pyroxylin plastic	20	NA1325
Pyrrolidine	18	UN1922
Quinoline	38	UN2656
Radioactive material, n.o.s.	44	UN2982
Radioactive material, excepted package; -Instruments or Articles -Limited quantity of material -Articles manufactured from Natural Uranium or Depleted Uranium or Natural Thorium -Empty packaging	45	UN2910
Radioactive material, fissile, n.o.s.	44	UN2918
Radioactive material, low specific activity (LSA), n.o.s.	45	UN2912
Radioactive material, special form, n.o.s.	44	UN2974
Radioactive material, surface contaminated objects (SCO)	44	UN2913
Rags, oily	20	UN1856
Rare gases and nitrogen mixtures	08	UN1981
Rare gases and oxygen mixtures	10	UN1980
Rare gases mixtures	08	UN1979
Receptables, small, with flammable gas	04	UN2037
Red phosphorus, amorphous	20	UN1338
Refrigerant gas, n.o.s. (cryogenic liquid)	04	NA1954
Refrigerant gases, n.o.s.	06	UN1078
Refrigerating machines	14	NA1993
Refrigerating machines *containing flammable, non-poisonous, non-corrosive, liquefied gas*	04	NA1954
Refrigerating machines, *containing non-flammable, non-poisonous, non-corrosive, liquefied gases*	06	UN2857
Resin solution, *flammable*	14	UN1866
Resin solution, poisonous	16	UN1896

Resorcinol	38	UN2876
Rodenticides, n.o.s.	36	UN1681
Rosin oil	14	UN1286
Rubber scrap or Rubber shoddy	20	UN1345
Rubber solution	14	UN1287
Rubidium *or* Rubidium, metal	25	UN1423
Rubidium hydroxide	39	UN2678
Rubidium hydroxide, solution	39	UN2677
Rubidium in cartridges	25	UN1423
Seed cake	23	UN1386
Seed cake	23	UN2217
Selenates	36	UN2630
Selenic acid *or* Selenic acid, liquid	39	UN1905
Selenites	36	UN2630
Selenium, powder	37	UN2658
Selenium disulphide	38	UN2657
Selenium hexafluoride	07	UN2194
Selenium oxide	39	NA2811
Selenium oxychloride	42	UN2879
Self-heating liquid, inorganic, n.o.s.	23	UN3186
Self-heating liquid, inorganic, corrosive, n.o.s.	23	UN3188
Self-heating liquid, inorganic, poisonous, n.o.s.	23	UN3187
Self-heating liquid, organic, n.o.s.	23	UN3183
Self-heating liquid, organic, corrosive, n.o.s.	23	UN3185
Self-heating liquid, organic, poisonous, n.o.s.	23	UN3184
Self-heating metal powders, n.o.s.	23	UN3189
Self-heating solid, inorganic, n.o.s.	23	UN3190
Self-heating solid, inorganic, corrosive, n.o.s.	23	UN3192
Self-heating solid, inorganic, poisonous, n.o.s.	23	UN3191
Self-heating solid, organic, n.o.s.	23	UN3088
Self-heating solid, organic, corrosive, n.o.s.	23	UN3126
Self-heating solid, organic, poisonous, n.o.s.	23	UN3128
Self-heating solid, oxidizing, n.o.s.	23	UN3127
Self-heating substances, solid, n.o.s.	23	UN3088
Self-heating substances, solid, corrosive, n.o.s.	23	UN3126
Self-heating substances, solid, oxidizing, n.o.s.	23	UN3127
Self-heating substances, solid, poisonous, n.o.s.	23	UN3128
Self-reactive liquid, type B	21	UN3221
Self-reactive liquid, type B, temperature controlled	22	UN3231
Self-reactive liquid, type C	21	UN3223
Self-reactive liquid, type C, temperature controlled	22	UN3233
Self-reactive liquid, type D	21	UN3225
Self-reactive liquid, type D, temperature controlled	22	UN3235
Self-reactive liquid, type E	21	UN3227
Self-reactive liquid, type E, temperature controlled	22	UN3237
Self-reactive liquid, type F	21	UN3229
Self-reactive liquid, type F, temperature controlled	22	UN3239
Self-reactive solid, type B	21	UN3222
Self-reactive solid, type B, temperature controlled	22	UN3232
Self-reactive solid, type C	21	UN3224

Self-reactive solid, type C, temperature controlled	22	UN3234
Self-reactive solid, type D	21	UN3226
Self-reactive solid, type D, temperature controlled	22	UN3236
Self-reactive solid, type E	21	UN3228
Self-reactive solid, type E, temperature controlled	22	UN3238
Self-reactive solid, type F	21	UN3230
Self-reactive solid, type F, temperature controlled	22	UN3240
Self-reactive substances, samples, n.o.s.	21	UN3031
Self-reactive substances, trial quantities, n.o.s.	21	UN3032
Shale oil	14	UN1288
Silane	13E	UN2203
Silicon powder, amorphous	52	UN1346
Silicon tetrachloride	42	UN1818
Silicon tetrafluoride	07	UN1859
Silver arsenite	36	UN1683
Silver cyanide	36	UN1684
Silver nitrate	30	UN1493
Silver picrate, wetted	02	UN1347
Sludge acid	38	UN1906
Smokeless powder, small arms	20	NA1325
Soda lime	39	UN1907
Sodium	26	UN1428
Sodium, metal, liquid alloy	26	NA1421
Sodium aluminate, solid	39	UN2812
Sodium aluminate, solution	39	UN1819
Sodium aluminum hydride	26	UN2835
Sodium amalgam	26	UN1424
Sodium amide	27	UN1425
Sodium ammonium vanadate	39	UN2863
Sodium arsanilate	39	UN2473
Sodium arsenate	36	UN1685
Sodium arsenite, aqueous solutions	36	UN1686
Sodium arsenite, solid	36	UN2027
Sodium azide	41E	UN1687
Sodium bifluoride	39	UN2439
Sodium bisulphate, solid	39	UN1821
Sodium bisulphate, solution	39	UN2837
Sodium bisulphite, solid	39	NA2693
Sodium bisulphite, solution	39	NA2693
Sodium borohydride	26	UN1426
Sodium bromate	30	UN1494
Sodium cacodylate	37	UN1688
Sodium chlorate	30	UN1495
Sodium chlorate, aqueous solution	29	UN2428
Sodium chlorite	30	UN1496
Sodium chlorite, solution	39E	UN1908
Sodium chloroacetate	36	UN2659
Sodium chromate	49	NA9145
Sodium cuprocyanide, solid	42	UN2316
Sodium cuprocyanide, solution	42	UN2317
Sodium cyanide, solid	42	UN1689
Sodium cyanide, solution	42	UN1689
Sodium 2-diazo-1-naphthol-4-sulphonate	21	UN3040
Sodium 2-diazo-1-naphthol-5-sulphonate	21	UN3041
Sodium dichloro-s-triazinetrione, dry	30	UN2465
Sodium dichromate	30	NA1479
Sodium dinitro-o-cresolate, wetted	02	UN1348

Sodium dithionite	25	UN1384
Sodium dodecylbenzene-sulphonate (branched chain)	49	NA9146
Sodium fluoride	39	UN1690
Sodium fluoroacetate	36	UN2629
Sodium fluorosilicate	39	UN2674
Sodium hydride	26	UN1427
Sodium hydrogen fluoride	39	UN2439
Sodium hydrogen sulphate, solid	39	UN1821
Sodium hydrogen sulphate, solution	39	UN2837
Sodium hydrogen sulphite, solid	39	NA2693
Sodium hydrogen sulphite, solution	39	NA2693
Sodium hydrosulphide, solid	23	UN2318
Sodium hydrosulphide, solid *with not less than 25% water of crystallization*	23	UN2949
Sodium hydrosulphide, solution	38	NA2922
Sodium hydrosulphite	25	UN1384
Sodium hydroxide, solid	39	UN1823
Sodium hydroxide, solution	39	UN1824
Sodium metabisulphite	39	NA2693
Sodium metal dispersion in organic liquids	26	UN1429
Sodium methylate	26	UN1431
Sodium methylate solutions *in alcohols*	19	UN1289
Sodium monoxide	42	UN1825
Sodium nitrate	30	UN1498
Sodium nitrate and potassium nitrate mixtures	30	UN1499
Sodium nitrite	30	UN1500
Sodium nitrite and potassium nitrate mixtures	30	UN1487
Sodium pentachlorophenate	39	UN2567
Sodium percarbonates	29	UN2467
Sodium perchlorate	30	UN1502
Sodium permanganate	30	UN1503
Sodium peroxide	28	UN1504
Sodium peroxoborate, anhydrous	30	UN3247
Sodium persulphate	29	UN1505
Sodium phenolate, solid	38	UN2497
Sodium phosphate, dibasic	49	NA9147
Sodium phosphate, tribasic	49	NA9148
Sodium phosphide	27	UN1432
Sodium picramate, wetted	02	UN1349
Sodium potassium alloys	26	UN1422
Sodium selenite	36	NA2630
Sodium sulphide *or* Sodium sulphide, anhydrous	23	UN1385
Sodium sulphide, hydrated	40	UN1849
Sodium superoxide	30	UN2547
Solids containing corrosive liquid, n.o.s.	39	UN3244
Solids containing flammable liquid, n.o.s.	20	UN3175
Solids containing poisonous liquid, n.o.s.	36	UN3243
Spirits of nitroglycerin	02	NA1204
Stannic chloride, anhydrous	42	UN1827
Stannic chloride, pentahydrate	39	UN2440
Stannic phosphides	27	UN1433

Stannous chloride, solid	39	NA1759
Stibine	05	UN2676
Straw, bhusa *or* hay, *wet, damp or contaminated with oil*	20	UN1327
Strontium alloys	26	UN1434
Strontium arsenite, solid	36	UN1691
Strontium chlorate	29	UN1506
Strontium chlorate, wetted	29	UN1506
Strontium chromate	49	NA9149
Strontium nitrate	30	UN1507
Strontium perchlorate	30	UN1508
Strontium peroxide	31	UN1509
Strontium phosphide	27	UN2013
Strychnine	36	UN1692
Strychnine mixtures	36	UN1692
Strychnine salt mixtures	36	UN1692
Strychnine salts	36	UN1692
Styrene monomer, inhibited	14P	UN2055
Substances, which in contact with water emit flammable gases, liquid, n.o.s.	26	UN3148
Substances, which in contact with water emit flammable gases, liquid, corrosive, n.o.s.	26	UN3129
Substances, which in contact with water emit flammable gases, liquid, poisonous, n.o.s.	26	UN3130
Substances, which in contact with water emit flammable gases, solid, n.o.s.	26	UN2813
Substances, which in contact with water emit flammable gases, solid, corrosive, n.o.s.	26	UN3131
Substances, which in contact with water emit flammable gases, solid, flammable, n.o.s.	26	UN3132
Substances, which in contact with water emit flammable gases, solid, oxidizing, n.o.s.	26	UN3133
Substances, which in contact with water emit flammable gases, solid, poisonous, n.o.s.	26	UN3134
Substances, which in contact with water emit flammable gases, solid, self-heating, n.o.s.	26	UN3135
Substituted nitrophenol pesticides, liquid, flammable, toxic, n.o.s.	18	UN2780
Substituted nitrophenol pesticides, liquid, toxic, n.o.s.	38	UN3014
Substituted nitrophenol pesticides liquid, toxic, flammable, n.o.s.	19	UN3013
Substituted nitrophenol pesticides, solid, toxic, n.o.s.	38	UN2779
Succinic acid peroxide	33	UN2135
Succinic acid peroxide	35	UN2962
Sulphamic acid	39	UN2967
Sulphur	20	NA1350
Sulphur	20	UN1350
Sulphur, molten	20	NA2448
Sulphur, molten	20	UN2448
Sulphur chloride(s)	41	UN1828
Sulphur dioxide, liquefied *or* Sulphur dioxide	07	UN1079
Sulphur hexafluoride	06	UN1080
Sulphuric acid	42	UN1830
Sulphuric acid, fuming	42	UN1831
Sulphuric acid, spent	42	UN1832

Sulphuric acid and hydrofluoric acid mixtures	42	UN1786
Sulphurous acid	39	UN1833
Sulphur tetrafluoride	07	UN2418
Sulphur trioxide, inhibited	42	UN1829
Sulphur trioxide, uninhibited	42	NA1829
Sulphuryl chloride	42	UN1834
Sulphuryl fluoride	07	UN2191
2,4,5-T	37	NA2765
Tars, liquid	16	UN1999
TDE or 1,1-Dichloro-2,2-bis-(p-chlorophenyl) ethane	36	NA2761
Tear gas candles	38	UN1700
Tear gas devices *with more than 2 % tear gas substances, by mass*	38	NA1693
Tear gas substances, liquid or solid, n.o.s.	38	UN1693
Tellurium hexafluoride	07	UN2195
Terpene hydrocarbons, n.o.s.	15	UN2319
Terpinolene	15	UN2541
Tetrabromoethane	36	UN2504
Tetrachloroethane	36	UN1702
Tetrachloroethylene	39	UN1897
Tetraethyl dithiopyrophosphate, dry, liquid, or mixture	38	UN1704
Tetraethyl dithiopyrophosphate and gases, in solution or mixtures	07	UN1703
Tetraethylenepentamine	38	UN2320
Tetraethyl lead, liquid	16E	NA1649
Tetraethyl pyrophosphate, liquid	37	NA3018
Tetraethyl pyrophosphate, solid	37	NA2783
Tetraethyl pyrophosphate and compressed gas mixtures	07	UN1705
Tetraethyl pyrophosphate mixture, liquid	37	NA2783
Tetraethyl pyrophosphate mixture, solid	37	NA2783
Tetraethyl silicate	19	UN1292
1,1,1,2-Tetrafluoroethane	06	UN3159
Tetrafluoroethane	06	UN3159
Tetrafluoroethylene, inhibited	04P	UN1081
Tetrafluoromethane	06	UN1982
1,2,3,6-Tetrahydrobenzaldehyde	19	UN2498
Tetrahydrofuran	14	UN2056
Tetrahydrofurfurylamine	38	UN2943
Tetrahydronaphthyl hydroperoxide	32	UN2136
Tetrahydrophthalic anhydrides	41	UN2698
1,2,3,6-Tetrahydropyridine	18	UN2410
Tetrahydrothiophene	16	UN2412
Tetralin hydroperoxide	32	UN2136
Tetramethylammonium hydroxide	38	UN1835
1,1,3,3-Tetramethylbutyl hydroperoxide	32	UN2160
1,1,3,3-Tetramethylbutyl peroxy-2-ethylhexanoate	35	UN2161
Tetramethyl methylenediamine	49	NA9069
Tetramethylsilane	16	UN2749
Tetranitromethane	31	UN1510
Tetrapropylorthotitanate	40	UN2413
Textile, waste, wet, n.o.s.	20	UN1857
Thallium chlorate	30	UN2573
Thallium compounds, n.o.s.	36	UN1707

Thallium nitrate	30	UN2727
Thallium salt, solid, n.o.s.	36	NA1707
Thallium sulphate, solid	36	NA1707
Thia-4-pentanal	19	UN2785
Thioacetic acid	18	UN2436
Thioglycol	38	UN2966
Thioglycolic acid	38	UN1940
Thiolactic acid	38	UN2936
Thionyl chloride	42	UN1836
Thiophene	16	UN2414
Thiophosgene	42	UN2474
Thiophosphoryl chloride	42	UN1837
Thiourea	37	UN2877
Thiram	37	NA2771
Thorium metal, pyrophoric	47	UN2975
Thorium nitrate, solid	46	UN2976
Tinctures, medicinal	14	UN1293
Tin tetrachloride, anhydrous	42	UN1827
Tin tetrachloride, pentahydrate	39	UN2440
Titanium disulphide	23	UN3174
Titanium hydride	52	UN1871
Titanium powder, dry	25	UN2546
Titanium powder, wetted	52	UN1352
Titanium sponge granules	52	UN2878
Titanium sponge powder	52	UN2878
Titanium sulphate solution	42	NA1760
Titanium tetrachloride	42	UN1838
Titanium tetrachloride and vanadium oxytrichloride, mixture	42	NA2443
Titanium trichloride mixtures	42	UN2869
Titanium trichloride, pyrophoric *or* Titanium trichloride mixtures, pyrophoric	25	UN2441
Toe puffs, *nitrocellulose base*	20	UN1353
Toluene	16	UN1294
Toluene diisocyanate	41	UN2078
Toluene sulphonic acid, liquid *with more than 5% free sulphuric acid*	38	UN2584
Toluene sulphonic acid, liquid *with not more than 5% free sulphuric acid*	38	UN2586
Toluene sulphonic acid, solid *with more than 5% free sulphuric acid*	38	UN2583
Toluene sulphonic acid, solid *with not more than 5% free sulphuric acid*	38	UN2585
Toluidines	38	UN1708
Toluidines, liquid	38	UN1708
Toluidines, solid	38	UN1708
2,4-Toluylenediamine	38	UN1709
Toxaphene	36	NA2761
Toxins, extracted from living sources, n.o.s.	38	UN3172
2,4,5-TP	37	NA2765
Triallylamine	19	UN2610
Triallyl borate	41	UN2609
Triazine pesticides, liquid, flammable, toxic, n.o.s.	16	UN2764
Triazine pesticides, liquid, toxic, n.o.s.	36	UN2998
Triazine pesticides, liquid, toxic, flammable, n.o.s.	17	UN2997
Triazine pesticides, solid, toxic, n.o.s.	36	UN2763
Tri-(1-aziridinyl) phosphine oxide, solution	37	UN2501
Tributylamine	38	UN2542
Trichlorfon	37	NA2783
Trichloroacetic acid	38	UN1839
Trichloroacetic acid, solution	38	UN2564

Trichloroacetyl chloride	41	UN2442
Trichlorobenzenes liquid	38	UN2321
Trichlorobutene	37	UN2322
1,1,1-Trichloroethane	36	UN2831
Trichloroethylene	39	UN1710
Trichloroisocyanuric acid, dry	30	UN2468
Trichlorophenol	38	NA2020
2,4,5-Trichlorophenoxy acetic acid	37	NA2765
2,4,5-Trichlorophenoxy acetic acid amine, ester or salt	37	NA2765
2,4,5-Trichlorophen-oxypropionic acid	37	NA2765
2,4,5-Trichlorophen-oxypropionic acid ester	37	NA2765
1,2,3-Trichloropropane	38	——
Trichlorosilane	27	UN1295
Trichloro-s-triazinetrione, dry	30	NA2468
(mono)-(Trichloro)-tetra-(monopotassium dichloro)-penta s-triazinetrione, dry	30	NA2468
Tricresyl phosphate	36	UN2574
Triethanolamine dodecylbenzenesulphonate	49	NA9151
Triethylamine	18	UN1296
Triethylenetetramine	38	UN2259
Triethyl phosphite	41	UN2323
Trifluoroacetic acid	39	UN2699
Trifluoroacetyl chloride	07	UN3057
Trifluorochloroethylene, inhibited	04P	UN1082
Trifluoroethane, compressed	06	UN2035
Trifluoromethane	06	UN1984
Trifluoromethane, refrigerated liquid	06	UN3136
Trifluoromethane and chlorotrifluoromethane azeotropic mixture	06	UN2599
2-Trifluoromethylaniline	38	UN2942
3-Trifluoromethylaniline	38	UN2948
Triisobutyl aluminum	25	UN1930
Triisobutylene	15	UN2324
Triisocyanatoiso-cyanurate of isophoronediisocyanate, solution	15	UN2906
Triisopropyl borate	40	UN2616
Trimethoxysilane	40	NA9269
Trimethyl acetyl chloride	40	UN2438
Trimethylamine, anhydrous	05	UN1083
Trimethylamine, aqueous solutions	19	UN1297
1,3,5-Trimethylbenzene	17	UN2325
Trimethyl borate	40	UN2416
Trimethylchlorosilane	40	UN1298
Trimethylcyclohexylamine	38	UN2326
Trimethylhexame-thylenediamine	38	UN2327
Trimethylhexame-thylenediisocyanate	41	UN2328
2,4,4-Trimethylpentyl-2-peroxy phenoxy acetate	35	UN2961
Trimethyl phosphite	27	UN2329
Trinitroaniline, wetted	02	NA9073
Trinitrobenzene, wetted	02	UN1354
Trinitrobenzoic acid, wetted	02	UN1355
Trinitrophenol, wetted	02	UN1344
Trinitrotoluene, wetted	02	UN1356
Tripropyl aluminum	25	UN2718
Tripropylamine	19	UN2260
Tripropylene	14	UN2057
Tritiated water	45	UN2912
Tungsten hexafluoride	07	UN2196
Turpentine	15	UN1299

Turpentine substitute	14	UN1300
Undecane	15	UN2330
Uranium hexafluoride, fissile	48	UN2977
Uranium hexafluoride, *fissile excepted or non-fissile*	48	UN2978
Uranium metal, pyrophoric	47	UN2979
Uranyl acetate	44	NA9180
Uranyl nitrate hexahydrate, solution	46	UN2980
Uranyl nitrate, solid	46	UN2981
Urea hydrogen peroxide	29	UN1511
Urea nitrate, wetted	02	UN1357
Valeraldehyde	18	UN2058
Valeric acid	38	NA1760
Valeryl chloride	40	UN2502
Vanadium oxytrichloride	42	UN2443
Vanadium oxytrichloride and titanium tetrachloride, mixture	42	NA2443
Vanadium pentoxide, *non-fused form*	36	UN2862
Vanadium tetrachloride	42	UN2444
Vanadium trichloride	42	UN2475
Vanadium trioxide, *non-fused form*	39	UN2860
Vanadyl sulphate	36	UN2931
Vinyl acetate, inhibited	18P	UN1301
Vinyl bromide, inhibited	04P	UN1085
Vinyl butyrate, inhibited	18P	UN2838
Vinyl chloride, inhibited	04P	UN1086
Vinyl chloroacetate	41	UN2589
Vinyl ethyl ether, inhibited	14P	UN1302
Vinyl fluoride, inhibited	04P	UN1860
Vinylidene chloride, inhibited	18P	UN1303
Vinyl isobutyl ether, inhibited	14P	UN1304
Vinyl methyl ether, inhibited	04P	UN1087
Vinyl pyridines, inhibited	18P	UN3073
Vinyl toluene, inhibited	17P	UN2618
Vinyltrichlorosilane, inhibited	40E	UN1305
Waste Type 1	38	NA9301
Waste Type 2	38	NA9302
Waste Type 3	16	NA9303
Waste Type 4	38	NA9304
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Waste Type 7	39	NA9307
Waste Type 8	38	NA9308
Waste Type 9	38	NA9309
Waste Type 10	38	NA9310
Waste Type 11	38	NA9311
Waste Type 12	38	NA9312
Waste Type 13	38	NA9313
Waste Type 14	38	NA9314
Waste Type 15	38	NA9315
Waste Type 16	39	NA9316
Waste Type 17	39	NA9317
Waste Type 18	39	NA9318
Waste Type 19	39	NA9319
Waste Type 20	39	NA9320
Waste Type 21	39	NA9321
Waste Type 22	39	NA9322
Waste Type 23	39	NA9323
Waste Type 24	37	NA9324
Waste Type 25	14	NA9325
Waste Type 26	37	NA9326
Waste Type 27	16	NA9327
Waste Type 28	16	NA9328
Waste Type 29	38	NA9329
Waste Type 30	38	NA9330
Waste Type 31	18	NA9331
Waste Type 32	18	NA9332
Waste Type 33	18	NA9333
Waste Type 34	18	NA9334
Waste Type 35	38	NA9335

Waste Type 36	38	NA9336
Waste Type 37	38	NA9337
Waste Type 38	38	NA9338
Waste Type 39	38	NA9339
Waste Type 40	38	NA9340
Waste Type 41	19	NA9341
Waste Type 42	18	NA9342
Waste Type 43	40	NA9343
Waste Type 44	19	NA9344
Waste Type 45	19	NA9345
Waste Type 46	38	NA9346
Waste Type 47	19	NA9347
Waste Type 48	38	NA9348
Waste Type 49	38	NA9349
Waste Type 50	38	NA9350
Waste Type 51	38	NA9351
Waste Type 52	38	NA9352
Waste Type 53	38	NA9353
Waste Type 54	38	NA9354
Waste Type 55	38	NA9355
Waste Type 56	38	NA9356
Waste Type 57	38	NA9357
Waste Type 58	38	NA9358
Waste Type 59	36	NA9359
Waste Type 60	19	NA9360
Waste Type 61	36	NA9361
Waste Type 62	36	NA9362
Waste Type 63	36	NA9363
Waste Type 64	36	NA9364
Waste Type 65	36	NA9365
Waste Type 66	36	NA9366
Waste Type 67	37	NA9367
Waste Type 68	39	NA9368
Waste Type 69	36	NA9369
Waste Type 70	36	NA9370
Waste Type 71	20	NA9371
Waste Type 72	36	NA9372
Waste Type 73	36	NA9373
Waste Type 74	14	NA9374
Waste Type 75	38	NA9375
Waste Type 76	38	NA9376
Waste Type 77	16	NA9377
Waste Type 78	38	NA9378
Waste Type 79	38	NA9379
Waste Type 80	36	NA9380
Waste Type 81	39	NA9381
Waste Type 82	39	NA9382
Waste Type 83	39	NA9383
Waste Type 84	36	NA9384
Waste Type 85	39	NA9385
Waste Type 86	39	NA9386
Waste Type 87	39	NA9387
Waste Type 88	36	NA9388
Waste Type 89	39	NA9389
Waste Type 90	39	NA9390
Waste Type 91	38	NA9391
Waste Type 92	39	NA9392
Waste Type 93	38	NA9393
Waste Type 94	36	NA9394
Waste Type 95	38	NA9395
Waste Type 96	36	NA9396
Waste Type 97	38	NA9397
Waste Type 99	42	NA9399
Waste Type 100	42	NA9400
Water-reactive liquid, n.o.s.	26	UN3148
Water-reactive liquid, corrosive, n.o.s.	26	UN3129
Water-reactive liquid, poisonous, n.o.s.	26	UN3130
Water reactive solid, n.o.s.	26	UN2813
Water-reactive solid, corrosive, n.o.s.	26	UN3131
Water-reactive solid, flammable, n.o.s.	26	UN3132
Water reactive solid, oxidizing, n.o.s.	26	UN3133

Water reactive solid, poisonous, n.o.s.	26	UN3134
Water reactive solid, self-heating, n.o.s.	26	UN3135
Wheelchair, electric with batteries	39	UN3171
White acid	39	NA1760
White asbestos (chrysotile, actinolite, anthophyllite, tremolite)	49	UN2590
White phosphorus	24	UN1381
White phosphorus, molten	24	UN2447
Wood preservatives, liquid	18	UN1306
Wool waste, wet	20	UN1387
Xenon	08	UN2036
Xenon, refrigerated liquid	08	UN2591
Xylenes	16	UN1307
Xylenols	38	UN2261
Xylidines	38	UN1711
Xylyl Bromide	37	UN1701
Yellow phosphorus	24	UN1381
Yellow phosphorus, molten	24	UN2447
Zinc acetate	49	NA9153
Zinc ammonium chloride	49	NA9154
Zinc ammonium nitrite	29	UN1512
Zinc arsenate	36	UN1712
Zinc arsenate and zinc arsenite mixtures	36	UN1712
Zinc arsenite	36	UN1712
Zinc arsenite and zinc arsenate mixtures	36	UN1712
Zinc ashes	26	UN1435
Zinc borate	49	NA9155
Zinc bromate	29	UN2469
Zinc bromide	49	NA9156
Zinc carbonate	49	NA9157
Zinc chlorate	29	UN1513
Zinc chloride, anhydrous	39	UN2331
Zinc chloride, solution	39	UN1840
Zinc cyanide	36	UN1713
Zinc dithionite	25	UN1931
Zinc dust	26	UN1436
Zinc fluoride	36	NA9158
Zinc fluorosilicate	39	UN2855
Zinc formate	49	NA9159
Zinc hydrosulphite	25	UN1931
Zinc nitrate	29	UN1514
Zinc permanganate	30	UN1515
Zinc peroxide	30	UN1516
Zinc phenolsulphonate	49	NA9160
Zinc phosphide	27	UN1714
Zinc powder	26	UN1436
Zinc resinate	20	UN2714
Zinc silicofluoride	39	UN2855
Zinc sulphate	49	NA9161
Zirconium, dry, coiled wire	52	UN2858
Zirconium, dry, *finished sheets, strips or coiled wire*	25	UN2009
Zirconium hydride	52	UN1437
Zirconium nitrate	29	UN2728
Zirconium picramate, wetted	02	UN1517
Zirconium potassium fluoride	49	NA9162
Zirconium powder, dry	25	UN2008
Zirconium powder, wetted	52	UN1358
Zirconium scrap	25	UN1932
Zirconium sulphate	39	NA9163
Zirconium suspended in a liquid	52	UN1308
Zirconium tetrachloride	42	UN2503

——	18	1,2-Dibromoethylene
——	37	m-Dichlorobenzene
——	38	2-Ethylhexenal
——	38	2-Ethyl-3-propylacrolein
——	02	Explosives, division 1.1, 1.2, 1.3, 1.5 or 1.6
——	03	Explosives, division 1.4
——	23	p-Nitrosodiethylaniline
——	38	1,2,3-Trichloropropane
UN1001	04E	Acetylene or Acetylene, dissolved
UN1002	10	Air, compressed
UN1003	10	Air, refrigerated, liquid, non-pressurized
UN1005	07	Ammonia anhydrous, liquefied
UN1005	07	Ammonia solutions *with more than 50 per cent ammonia*
UN1006	08	Argon, compressed
UN1008	07	Boron trifluoride
UN1009	06	Bromotrifluoromethane
UN1010	04P	Butadienes, inhibited
UN1011	04	Butane
UN1011	04	Butane mixtures
UN1012	04	Butylene
UN1013	09	Carbon dioxide, compressed or Carbon dioxide
UN1014	10	Carbon dioxide and oxygen mixtures
UN1015	06	Carbon dioxide and nitrous oxide mixtures
UN1016	05	Carbon monoxide
UN1017	12	Chlorine
UN1018	06	Chlorodifluoromethane
UN1020	06	Chloropentafluoroethane
UN1021	06	1-Chloro-1,2,2,2-tetrafluoroethane
UN1021	06	Chlorotetrafluoroethane
UN1022	06	Chlorotrifluoromethane
UN1023	05	Coal gas
UN1026	05	Cyanogen, liquefied or Cyanogen gas
UN1027	04	Cyclopropane or Cyclopropane, liquefied
UN1028	06	Dichlorodifluoromethane
UN1029	06	Dichlorofluoromethane
UN1030	04	Difluoroethane
UN1032	05	Dimethylamine, anhydrous
UN1033	04	Dimethyl ether
UN1035	04	Ethane or Ethane, compressed
UN1036	05	Ethylamine
UN1037	04	Ethyl chloride
UN1038	04	Ethylene, refrigerated liquid
UN1039	04	Ethyl methyl ether
UN1040	05E	Ethylene oxide, *pure or with nitrogen*
UN1041	05E	Carbon dioxide and ethylene oxide mixtures *with more than 6 % ethylene oxide*
UN1043	07	Fertilizer ammoniating solution
UN1044	06	Fire extinguishers, *with compressed or liquefied gases*
UN1045	12	Fluorine or Fluorine, compressed
UN1046	08	Helium, compressed
UN1048	07	Hydrogen bromide, anhydrous
UN1049	04	Hydrogen or Hydrogen, compressed
UN1050	07	Hydrogen chloride, anhydrous
NA1051	05E	Hydrocyanic acid, liquefied
UN1051	05E	Hydrogen cyanide, anhydrous, stabilized

UN1052	07	Hydrogen fluoride, anhydrous
UN1053	05	Hydrogen sulphide or Hydrogen sulphide, liquefied
UN1055	04	Isobutylene
UN1056	08	Krypton or Krypton, compressed
UN1057	04	Cigarette lighter *with flammable gas*
UN1057	04	Flammable gas in lighters
UN1057	04	Lighters (cigarettes), *containing flammable gas*
UN1057	04	Lighters for cigars, cigarettes etc., *with flammable gas*
UN1057	04	Lighter refills (cigarettes), *containing flammable gas*
UN1058	08	Liquefied gases, *nonflammable*
UN1060	04P	Methyl acetylene and propadiene mixtures, stabilized
UN1061	05	Methylamine, anhydrous
UN1062	07	Methyl bromide
UN1063	05	Methyl chloride
UN1064	05	Methyl mercaptan
UN1065	08	Neon or Neon, compressed
UN1066	08	Nitrogen, compressed or Nitrogen
NA1067	12	Nitrogen dioxide, liquid
NA1067	12	Nitrogen peroxide, liquid
UN1067	12	Dinitrogen tetroxide liquefied
UN1067	12	Dinitrogen tetroxide (Nitrogen dioxyde), liquefied
UN1067	12	Nitrogen dioxide, liquefied
UN1067	12	Nitrogen dioxide liquid
UN1067	12	Nitrogen oxides, n.o.s.
UN1069	07	Nitrosyl chloride
UN1070	10	Nitrous oxide, compressed or Nitrous oxide
UN1071	05	Oil gas
UN1072	11	Oxygen, compressed or Oxygen
UN1073	11	Oxygen, pressurized liquid
UN1073	11	Oxygen, refrigerated liquid
UN1075	04	Liquefied petroleum gas, n.o.s.
UN1075	04	LPG
UN1075	04	Petroleum gases, liquefied, n.o.s.
UN1076	07	Phosgene
UN1077	04P	Propylene
UN1078	06	Dispersant gas, n.o.s.
UN1078	06	Refrigerant gases, n.o.s.
UN1079	07	Sulphur dioxide, liquefied or Sulphur dioxide
UN1080	06	Sulphur hexafluoride
UN1081	04P	Tetrafluoroethylene, inhibited
UN1082	04P	Trifluorochloroethylene, inhibited
UN1083	05	Trimethylamine, anhydrous
UN1085	04P	Vinyl bromide, inhibited
UN1086	04P	Vinyl chloride, inhibited
UN1087	04P	Vinyl methyl ether, inhibited
UN1088	14	Acetal
UN1089	18	Acetaldehyde
UN1090	14	Acetone
UN1091	14	Acetone oils
UN1092	18P	Acrolein, inhibited
UN1093	16P	Acrylonitrile, inhibited
UN1098	17	Allyl alcohol
UN1099	19	Allyl bromide
UN1100	18	Allyl chloride
UN1104	18	Amyl acetates
UN1105	16	Amyl alcohols

UN1106	18	Amylamine
UN1107	18	Amyl chloride
UN1108	14	n-Amylene
UN1109	18	Amyl formates
UN1110	15	Amyl methyl ketone
UN1111	16	Amyl mercaptan
UN1112	29	Amyl nitrate
UN1113	16	Amyl nitrite
UN1114	16	Benzene
UN1118	18	Brake fluid, *hydraulic*
UN1120	16	Butanols
UN1123	18	Butyl acetates
UN1125	19	n-Butylamine
UN1126	16	n-Butyl bromide
UN1127	18	Butyl chloride
UN1127	18	Chlorobutanes
UN1128	18	n-Butyl formate or Butyl formate
UN1129	18	Butyraldehyde
UN1130	15	Camphor oil
UN1131	16	Carbon bisulphide
UN1131	16	Carbon disulphide
UN1132	18	Carbon remover, liquid
UN1133	14	Adhesives, *containing flammable liquid*
UN1134	18	Chlorobenzene
UN1135	19	Ethylene chlorohydrin
UN1136	14	Coal tar distillates, flammable
UN1137	15	Coal tar distillates, flammable
UN1139	14	Coating solution
UN1142	14	Flammable liquid preparations, n.o.s.
UN1143	18P	Crotonaldehyde, stabilized
UN1144	14E	Crotonylene
UN1145	14	Cyclohexane
UN1146	14	Cyclopentane
UN1147	19	Decahydronaphthalene
UN1148	16	Diacetone alcohol
UN1149	15	Butyl ethers
UN1149	15	Dibutyl ethers
UN1150	18P	Dichloroethylene
UN1152	17	Dichloropentanes
UN1153	15	Ethylene glycol diethyl ether
UN1154	18	Diethylamine
UN1155	14	Diethyl ether
UN1155	14	Ethyl ether
UN1156	14	Diethyl ketone
UN1157	15	Diisobutyl ketone
UN1158	18	Diisopropylamine
UN1159	14	Diisopropyl ether
UN1160	18	Dimethylamine, solution
UN1161	18	Dimethyl carbonate
UN1162	40	Dimethyldichlorosilane
UN1163	25	1,1-Dimethylhydrazine
UN1163	25	Dimethylhydrazine, unsymmetrical or 1,1-Dimethylhydrazine
UN1164	18	Dimethyl sulphide
UN1165	14	Dioxane
UN1166	14	Dioxolane
UN1167	14P	Divinyl ether, inhibited
UN1168	14	Driers, paint or varnish, liquid, n.o.s.
UN1169	14	Extracts, aromatic, liquid
UN1170	14	Ethanol
UN1170	14	Ethanol solutions
UN1170	14	Ethyl alcohol
UN1170	14	Ethyl alcohol solutions
UN1171	15	Ethylene glycol monoethyl ether
UN1172	19	Ethylene glycol monoethyl ether acetate
UN1173	18	Ethyl acetate
UN1175	16	Ethylbenzene
UN1176	26	Ethyl borate
UN1177	19	Ethyl butyl acetate

UN1178	18	2-Ethylbutyraldehyde or Ethyl butyraldehyde
UN1179	14	Ethyl butyl ether
UN1180	19	Ethyl butyrate
UN1181	40	Ethyl chloroacetate
UN1182	40	Ethyl chloroformate
UN1183	27	Ethyldichlorosilane
UN1184	18	Ethylene dichloride
UN1185	18P	Ethyleneimine, inhibited
UN1188	15	Ethylene glycol monomethyl ether
UN1189	19	Ethylene glycol monomethyl ether acetate
UN1190	18	Ethyl formate
UN1191	19	Octyl aldehydes, *flammable*
UN1192	19	Ethyl lactate
UN1193	14	Ethyl methyl ketone
UN1193	14	Methyl ethyl ketone
UN1194	18	Ethyl nitrite, solutions
UN1195	18	Ethyl propionate
UN1196	40	Ethyltrichlorosilane
UN1197	14	Extracts, flavouring, liquid
UN1198	19	Formaldehyde solutions, flammable
UN1199	19P	Furfural
UN1201	15	Fusel oil
UN1202	15	Diesel fuel
UN1202	15	Fuel oil, no. 1,2,4,5,6
UN1202	14	Gas oil
NA1203	14	Gasohol
UN1203	14	Gasoline
UN1203	14	Motor spirit including gasoline or petrol
UN1203	14	Petrol
NA1204	02	Spirits of nitroglycerin
UN1204	02	Nitroglycerin, solution in alcohol
UN1205	14	Gutta percha solution
UN1206	14	Heptanes
UN1207	19	Hexaldehyde
UN1208	14	Hexanes
UN1208	14	Neohexane
UN1210	16	Ink, printer's, flammable
UN1210	16	Printing ink, flammable
UN1212	17	Isobutanol
UN1212	17	Isobutyl alcohol
UN1213	18	Isobutyl acetate
UN1214	18	Isobutylamine
UN1216	14	Isooctene
UN1218	18P	Isoprene, inhibited
UN1219	16	Isopropanol
UN1219	16	Isopropyl alcohol
UN1220	18	Isopropyl acetate
UN1221	18	Isopropylamine
UN1222	16E	Isopropyl nitrate
UN1223	15	Kerosene
UN1224	14	Ketones, liquid, n.o.s.
NA1226	14	Lighters for cigars, cigarettes etc. *with lighter fluid*
UN1226	14	Cigarette lighter *(with lighter fluid)*
UN1226	14	Lighter fluid
UN1226	14	Lighters for cigars, cigarettes etc. *with lighter fluid*
UN1228	16	Mercaptans, liquid, n.o.s.
UN1228	16	Mercaptan mixtures, liquid, n.o.s.
UN1229	19	Mesityl oxide
UN1230	16	Methanol
UN1230	16	Methyl alcohol
UN1231	18	Methyl acetate
UN1232	14	Methyl acetone
UN1233	19	Methylamyl acetate
UN1234	14	Methylal
UN1235	18	Methylamine, aqueous solution
UN1237	18	Methyl butyrate

UN1238	40	Methyl chloroformate
UN1239	18	Methylchloromethyl ether
UN1242	25	Methyldichlorosilane
UN1243	18	Methyl formate
UN1244	25	Methylhydrazine
UN1245	14	Methyl isobutyl ketone
UN1246	14P	Methyl isopropenyl ketone, inhibited
UN1247	18P	Methyl methacrylate monomer, inhibited
UN1248	18	Methyl propionate
UN1249	14	Methyl propyl ketone
UN1250	40	Methyltrichlorosilane
UN1251	14P	Methyl vinyl ketone, inhibited
UN1255	14	Naphtha, petroleum
UN1256	14	Naphtha, solvent
UN1257	14	Natural gasoline
UN1259	16E	Nickel carbonyl
UN1261	17E	Nitromethane
UN1262	14	Isooctane
UN1262	14	Octanes
NA1263	14	Lacquer chips, wet
UN1263	14	Paint
UN1263	14	Paint related material
UN1264	19	Paraldehyde
UN1265	14	Isopentane
UN1265	14	n-Pentane or Pentane
UN1266	14	Perfumery products
UN1267	14	Petroleum crude oil
UN1268	14	Petroleum distillates, n.o.s.
UN1270	14	Petroleum oil
UN1271	14	Petroleum ether
UN1271	14	Petroleum spirit
UN1272	17	Pine oil
UN1274	16	n-Propanol
UN1274	16	normal Propyl alcohol
UN1275	18	Propionaldehyde
UN1276	18	n-Propyl acetate or Propyl acetate
UN1277	18	Propylamine
UN1278	16	Propyl chloride
UN1279	18	Dichloropropane
UN1279	18	Propylene dichloride
UN1280	14P	Propylene oxide
UN1281	18	Propyl formates
UN1282	19	Pyridine
UN1286	14	Rosin oil
UN1287	14	Rubber solution
UN1288	14	Shale oil
UN1289	19	Sodium methylate solutions *in alcohols*
UN1292	19	Ethyl silicate
UN1292	19	Tetraethyl silicate
UN1293	14	Tinctures, medicinal
UN1294	16	Toluene
UN1295	27	Trichlorosilane
UN1296	18	Triethylamine
UN1297	1[illegible]	Trimethylamine, aqueous solutions
UN1298	40	Trimethylchlorosilane
UN1299	15	Turpentine
UN1300	14	Turpentine substitute
UN1301	18P	Vinyl acetate, inhibited
UN1302	14P	Vinyl ethyl ether, inhibited
UN1303	18P	Vinylidene chloride, inhibited
UN1304	14P	Vinyl isobutyl ether, inhibited
UN1305	40E	Vinyltrichlorosilane, inhibited
UN1306	18	Wood preservatives, liquid
UN1307	16	Xylenes
UN1308	52	Zirconium suspended in a liquid
UN1309	52	Aluminum powder, coated
UN1310	02	Ammonium picrate, wetted
UN1312	20	Borneol

UN1313	20	Calcium resinate
UN1314	20	Calcium resinate, fused
UN1318	20	Cobalt resinate, precipitated
UN1320	02	Dinitrophenol, wetted
UN1321	02	Dinitrophenolates, wetted
UN1322	02	Dinitroresorcinol, wetted
UN1323	52	Ferrocerium
UN1324	20	Films, nitrocellulose base
NA1325	41	Antimony sulphide, solid
NA1325	20	Fusee (railway or highway)
NA1325	20	Medicines, flammable, solid, n.o.s.
NA1325	20	Pyroxylin plastic
NA1325	20	Smokeless powder, small arms
UN1325	20	Flammable solid, n.o.s.
UN1325	20	Flammable solid, organic, n.o.s.
UN1326	52	Hafnium powder, wetted
UN1327	20	Straw, bhusa or hay, *wet, damp or contaminated with oil*
UN1328	20	Hexamine
UN1330	20	Manganese resinate
UN1331	20	Matches, "strike anywhere"
UN1332	20	Metaldehyde
UN1333	52	Cerium, crude
UN1333	52	Cerium, *slabs, ingots or rods*
UN1334	20	Naphthalene, crude
UN1334	20	Naphthalene, refined
UN1336	02	Nitroguanidine, wetted
UN1336	02	Picrite, wetted
UN1337	02	Nitrostarch, wetted
UN1338	20	Phosphorus, amorphous or Phosphorus, amorphous, red
UN1339	27	Phosphorus heptasulphide
UN1340	27	Phosphorus pentasulphide
UN1341	25	Phosphorus sesquisulphide
UN1343	40	Phosphorus trisulphide
NA1344	02	Picric acid, wet
UN1344	02	Trinitrophenol, wetted
UN1345	20	Rubber scrap or Rubber shoddy
UN1346	52	Silicon powder, amorphous
UN1347	02	Silver picrate, wetted
UN1348	02	Sodium dinitro-o-cresolate, wetted
UN1349	02	Sodium picramate, wetted
NA1350	20	Sulphur
UN1350	20	Sulphur
UN1352	52	Titanium powder, wetted
UN1353	20	Fabrics impregnated with weakly nitrated nitrocellulose, n.o.s.
UN1353	20	Fibres impregnated with weakly nitrated nitrocellulose, n.o.s.
UN1353	20	Toe puffs, *nitrocellulose base*
UN1354	02	Trinitrobenzene, wetted
UN1355	02	Trinitrobenzoic acid, wetted
UN1356	02	Trinitrotoluene, wetted
UN1357	02	Urea nitrate, wetted
UN1358	52	Zirconium powder, wetted
UN1359	20	Bags, having contained sodium nitrate, or potassium nitrate, empty, unwashed
UN1360	27	Calcium phosphide
NA1361	20	Charcoal briquettes
UN1361	20	Carbon, *animal or vegetable origin*

UN1361	20	Charcoal
UN1362	20	Carbon, activated
UN1362	20	Charcoal, activated
UN1363	20	Copra
UN1364	20	Cotton waste, oily
UN1365	20	Cotton, wet
UN1366	25	Diethylzinc
UN1368	25	Dimethylmagnesium
UN1369	23	p-Nitrosodimethylaniline
UN1370	25	Dimethylzinc
UN1371	20	Driers, paint or varnish, solid, n.o.s.
UN1372	20	Fibres, animal or vegetable, n.o.s., *burnt, wet or damp*
UN1373	20	Fabrics, animal, synthetic or vegetable, n.o.s., with oil
UN1374	20	Fish meal, unstabilized
UN1374	20	Fish scrap, unstabilized
UN1375	23	Fuel, pyrophoric, n.o.s.
UN1376	25	Iron oxide, spent
UN1376	25	Iron sponge, spent
UN1378	52E	Metal catalyst, wetted *with a visible excess of liquid*
UN1378	52E	Metal catalyst, wetted *with not less than 40% water or suitable liquid, by mass, finely divided, activated or spent*
UN1378	52E	Nickel catalyst, wetted
UN1379	20	Paper, unsaturated oil treated
UN1380	25	Pentaborane
UN1381	24	Phosphorus, white or yellow, dry or under water or in solution
UN1382	23	Potassium sulphide or Potassium sulphide, anhydrous
NA1383	25	Iron mass
NA1383	25	Iron sponge
UN1383	23	Pyrophoric alloys, n.o.s.
UN1383	23	Pyrophoric metals, n.o.s.
UN1384	25	Sodium dithionite
UN1384	25	Sodium hydrosulphite
UN1385	23	Sodium sulphide or Sodium sulphide, anhydrous
UN1386	23	Seed cake
UN1387	20	Wool waste, wet
UN1389	26	Alkali metal amalgams, n.o.s.
UN1390	27	Alkali metal amides, n.o.s.
UN1391	26	Alkali metal dispersions, n.o.s.
UN1391	26	Alkaline earth metal dispersions, n.o.s.
UN1392	26	Alkaline earth metal amalgams, n.o.s.
UN1393	26	Alkaline earth metal alloys, n.o.s.
UN1394	26	Aluminum carbide
UN1395	27	Aluminum ferrosilicon powder
UN1396	26	Aluminum powder, uncoated, non-pyrophoric
UN1397	27	Aluminum phosphide
UN1398	26	Aluminum silicon powder, uncoated
UN1399	26	Barium alloys
UN1400	26	Barium
UN1401	26	Calcium
UN1401	26	Calcium alloys
UN1401	26	Calcium metal or Calcium metal, crystalline
UN1402	26	Calcium carbide
UN1403	26	Calcium cyanamide
UN1404	26	Calcium hydride
UN1405	26	Calcium silicide
UN1406	26	Calcium silicon
UN1407	26	Caesium or Cesium metal

UN1408	26	Ferrosilicon
UN1409	26	Hydrides, metal, n.o.s.
UN1409	26	Metal hydrides, water reactive, n.o.s.
UN1410	26	Lithium aluminum hydride
UN1411	26	Lithium aluminum hydride, ethereal
UN1412	27	Lithium amide
UN1413	26	Lithium borohydride
UN1414	26	Lithium hydride
UN1415	26	Lithium
UN1415	26	Lithium, metal
UN1415	26	Lithium in cartridges
UN1417	26	Lithium silicon
UN1418	26	Magnesium alloys powder
UN1418	26	Magnesium powder
UN1419	27	Magnesium aluminum phosphide
UN1420	26	Potassium, metal alloys
UN1420	26	Potassium, metal liquid alloy
NA1421	26	Sodium, metal, liquid alloy
UN1421	26	Alkali metal alloys, liquid, n.o.s.
UN1422	26	Potassium sodium alloys
UN1423	25	Rubidium or Rubidium, metal
UN1423	25	Rubidium in cartridges
UN1424	26	Sodium amalgam
UN1425	27	Sodium amide
UN1426	26	Sodium borohydride
UN1427	26	Sodium hydride
UN1428	26	Sodium
UN1429	26	Sodium metal dispersion in organic liquids
UN1431	26	Sodium methylate
UN1432	27	Sodium phosphide
UN1433	27	Stannic phosphides
UN1434	26	Strontium alloys
UN1435	26	Zinc ashes
UN1436	26	Zinc dust
UN1436	26	Zinc powder
UN1437	52	Zirconium hydride
UN1438	29	Aluminum nitrate
UN1439	30	Ammonium dichromate
UN1442	30	Ammonium perchlorate
UN1444	29	Ammonium persulphate
UN1445	30	Barium chlorate
UN1445	30	Barium chlorate solution
UN1445	30	Barium chlorate, wetted
UN1446	30	Barium nitrate
UN1447	30	Barium perchlorate
UN1447	30	Barium perchlorate, solutions
UN1448	30	Barium permanganate
UN1449	30	Barium peroxide
UN1450	30	Bromates, inorganic, n.o.s.
UN1451	30	Caesium nitrate
UN1452	29	Calcium chlorate
UN1453	29	Calcium chlorite
UN1454	30	Calcium nitrate
UN1455	30	Calcium perchlorate
UN1455	30	Calcium perchlorate solutions
UN1456	30	Calcium permanganate
UN1457	29	Calcium peroxide
UN1458	30	Chlorate and borate mixtures
UN1459	30	Chlorate and magnesium chloride mixtures
UN1461	30	Chlorates, inorganic, n.o.s.
UN1462	30	Chlorites, inorganic, n.o.s.
NA1463	30	Chromic acid, solid
UN1463	30	Chromic acid, solid
UN1463	30	Chromium trioxide, anhydrous
UN1465	30	Didymium nitrate
UN1466	30	Ferric nitrate

UN1467	30	Guanidine nitrate
UN1469	30	Lead nitrate
UN1470	30	Lead perchlorate
UN1471	30	Lithium hypochlorite, dry
UN1471	30	Lithium hypochlorite mixtures
UN1472	31	Lithium peroxide
UN1473	29	Magnesium bromate
UN1474	30	Magnesium nitrate
UN1475	30	Magnesium perchlorate
UN1476	30	Magnesium peroxide
UN1477	30	Nitrates, inorganic, n.o.s.
NA1479	30	Cupric nitrate
NA1479	30	Medicines, oxidizing substances, solid, n.o.s.
NA1479	30	Potassium dichromate
NA1479	30	Sodium dichromate
UN1479	30	Oxidizing solid, n.o.s.
UN1479	30	Oxidizing substances, n.o.s.
UN1481	30	Perchlorates, inorganic, n.o.s.
UN1482	31	Permanganates, inorganic, n.o.s.
UN1483	33	Peroxides, inorganic, n.o.s.
UN1484	29	Potassium bromate
UN1485	30	Potassium chlorate
UN1486	30	Potassium nitrate
UN1487	30	Potassium nitrate and sodium nitrite mixtures
UN1488	29	Potassium nitrite
UN1489	30	Potassium perchlorate
UN1490	30	Potassium permanganate
UN1491	28	Potassium peroxide
UN1492	29	Potassium persulphate
UN1493	30	Silver nitrate
UN1494	30	Sodium bromate
UN1495	30	Sodium chlorate
UN1496	30	Sodium chlorite
UN1498	30	Sodium nitrate
UN1499	30	Potassium nitrate and sodium nitrate mixtures
UN1500	30	Sodium nitrite
UN1502	30	Sodium perchlorate
UN1503	30	Sodium permanganate
UN1504	28	Sodium peroxide
UN1505	29	Sodium persulphate
UN1506	29	Strontium chlorate
UN1506	29	Strontium chlorate, wetted
UN1507	30	Strontium nitrate
UN1508	30	Strontium perchlorate
UN1509	31	Strontium peroxide
UN1510	31	Tetranitromethane
UN1511	29	Urea hydrogen peroxide
UN1512	29	Zinc ammonium nitrite
UN1513	29	Zinc chlorate
UN1514	29	Zinc nitrate
UN1515	30	Zinc permanganate
UN1516	30	Zinc peroxide
UN1517	02	Zirconium picramate, wetted
UN1541	40	Acetone cyanohydrin, stabilized
UN1544	36	Alkaloids, solid, n.o.s., *poisonous*
UN1544	36	Alkaloid salts, solid, n.o.s., *poisonous*
UN1545	40	Allyl isothiocyanate, inhibited
UN1546	36	Ammonium arsenate
UN1547	38	Aniline
UN1548	38	Aniline hydrochloride
NA1549	42	Antimony tribromide, solid
NA1549	42	Antimony tribromide, solution
NA1549	42	Antimony trifluoride, solid
NA1549	42	Antimony trifluoride, solution

UN1549	42	Antimony compounds, inorganic, n.o.s.
UN1550	36	Antimony lactate
UN1551	36	Antimony potassium tartrate
UN1553	39	Arsenic acid, liquid
UN1553	39	Arsenic acid, solution
UN1554	39	Arsenic acid, solid
UN1555	36	Arsenic bromide
NA1556	37	Methyl dichloroarsine
NA1556	37	Phenyldichloroarsine
UN1556	37	Arsenates, liquid, n.o.s.
UN1556	37	Arsenic compounds, liquid, n.o.s.
UN1556	37	Arsenic sulphides, liquid, n.o.s.
UN1556	37	Arsenites, liquid, n.o.s.
UN1556	37	Organic compounds of arsenic, liquid, n.o.s.
NA1557	37	Arsenical dip, liquid
NA1557	37	Arsenic iodide, solid
NA1557	37	Arsenic sulphide, solid
NA1557	37	Arsenic trisulphide
UN1557	37	Arsenates, solid, n.o.s.
UN1557	37	Arsenic compounds, solid, n.o.s.
UN1557	37	Arsenic sulphides, solid, n.o.s.
UN1557	37	Arsenites, solid, n.o.s.
UN1557	37	Organic compounds of arsenic, solid, n.o.s.
UN1558	37	Arsenic
UN1559	36	Arsenic pentoxide
UN1560	42	Arsenic chloride
UN1560	42	Arsenic trichloride
UN1561	36	Arsenic trioxide
UN1562	37	Arsenical dust
UN1564	39	Barium compounds, n.o.s.
UN1565	42	Barium cyanide
NA1566	39	Beryllium chloride
NA1566	39	Beryllium fluoride
UN1566	39	Beryllium compounds, n.o.s.
UN1567	37	Beryllium, powder
UN1569	18	Bromoacetone
UN1570	37	Brucine
UN1571	02	Barium azide, *wetted*
UN1572	36	Cacodylic acid
UN1573	36	Calcium arsenate
NA1574	36	Calcium arsenite, solid
UN1574	36	Calcium arsenate and calcium arsenite mixtures, solid
UN1575	42	Calcium cyanide
UN1577	38E	Chlorodinitrobenzenes
UN1578	37E	Chloronitrobenzenes
UN1579	38	4-Chloro-o-toluidine hydrochloride
UN1580	39E	Chloropicrin
UN1581	07	Chloropicrin and methyl bromide mixtures
UN1582	05	Chloropicrin and methyl chloride mixtures
UN1583	39	Chloropicrin mixtures, n.o.s.
UN1584	36	Cocculus or Cocculus, solid
UN1585	36	Copper acetoarsenite
UN1586	36	Copper arsenite
UN1587	36	Copper cyanide
UN1588	42	Cyanides, inorganic, n.o.s.
UN1589	07	Cyanogen chloride, inhibited
UN1590	38	Dichloroanilines
UN1591	37	o-Dichlorobenzene
UN1592	37	p-Dichlorobenzene
UN1593	39	Dichloromethane
UN1594	37	Diethyl sulphate
UN1595	41	Dimethyl sulphate
UN1596	38E	Dinitroanilines

UN1597	37E	Dinitrobenzenes
UN1598	38E	Dinitro-o-cresol
UN1599	39	Dinitrophenol solutions
UN1600	37E	Dinitrotoluenes, molten
UN1601	36	Disinfectants, poisonous, solid, n.o.s.
UN1602	36	Dye intermediates, n.o.s., *poisonous, liquid*
UN1602	36	Dye intermediates, n.o.s., *poisonous, solid*
UN1602	36	Dyes, n.o.s., *poisonous, liquid*
UN1602	36	Dyes, n.o.s., *poisonous, solid*
UN1603	40	Ethyl bromoacetate
UN1604	19	Ethylenediamine
UN1605	39	Ethylene dibromide
UN1606	36	Ferric arsenate
UN1607	36	Ferric arsenite
UN1608	36	Ferrous arsenate
UN1610	19	Halogenated irritating liquid, n.o.s.
UN1611	36	Hexaethyl tetraphosphate
UN1612	07	Hexaethyl tetraphosphate and compressed gas mixtures
NA1613	39E	Hydrocyanic acid, aqueous solutions
UN1613	39E	Hydrocyanic acid, aqueous solutions
UN1614	18E	Hydrogen cyanide, anhydrous, stabilized, *absorbed in a porous inert material*
UN1616	36	Lead acetate
UN1617	36	Lead arsenates
UN1618	36	Lead arsenites
UN1620	36	Lead cyanide
UN1621	36	London purple
UN1622	36	Magnesium arsenate
UN1623	36	Mercuric arsenate
UN1624	39	Mercuric chloride
UN1625	30	Mercuric nitrate
UN1626	42	Mercuric potassium cyanide
UN1627	30	Mercurous nitrate
UN1628	36	Mercurous sulphate
UN1629	36	Mercuric acetate
UN1629	36	Mercurous acetate
UN1629	36	Mercury acetate
UN1630	36	Mercuric ammonium chloride
UN1630	36	Mercury ammonium chloride
UN1631	39	Mercuric benzoate
UN1631	39	Mercury benzoate
UN1633	36	Mercury bisulphate
UN1634	39	Mercuric bromide
UN1634	39	Mercurous bromide
UN1634	39	Mercury bromides
UN1636	39	Mercuric cyanide
UN1636	39	Mercury cyanide
UN1637	36	Mercurous gluconate
UN1637	36	Mercury gluconate
UN1638	36	Mercuric iodide
UN1638	36	Mercuric iodide, solution
UN1638	36	Mercurous iodide
UN1638	36	Mercury iodide
UN1638	36	Mercury iodide, solution
UN1639	36	Mercury nucleate
UN1640	36	Mercuric oleate
UN1640	36	Mercury oleate
UN1641	36	Mercuric oxide
UN1641	36	Mercurous oxide, black
UN1641	36	Mercury oxide
UN1642	36	Mercuric oxycyanide, desensitized
UN1642	36	Mercury oxycyanide, desensitized
UN1643	36	Mercuric potassium iodide
UN1643	36	Mercury potassium iodide

UN1644	36	Mercuric salicylate
UN1644	36	Mercury salicylate
UN1645	36	Mercuric sulphate
UN1645	36	Mercury sulphate
UN1646	36	Mercuric thiocyanate
UN1646	36	Mercury thiocyanate
UN1647	36	Methyl bromide and Ethylene dibromide mixtures, liquid
UN1648	17	Acetonitrile
UN1648	17	Methyl cyanide
NA1649	16E	Tetraethyl lead, liquid
UN1649	16E	Motor fuel antiknock mixtures
UN1650	38	beta-Naphthylamine
UN1651	38	Naphthylthiourea
UN1652	38	Naphthylurea
UN1653	36	Nickel cyanide
UN1654	36	Nicotine
UN1655	36	Nicotine compounds, liquid, n.o.s.
UN1655	36	Nicotine compounds, solid, n.o.s.
UN1655	36	Nicotine preparations, liquid, n.o.s.
UN1655	36	Nicotine preparations, solid, n.o.s.
UN1656	36	Nicotine hydrochloride or Nicotine hydrochloride, solution
UN1657	36	Nicotine salicylate
UN1658	36	Nicotine sulphate, liquid
UN1658	36	Nicotine sulphate, solid
UN1658	36	Nicotine sulphate, solution
UN1659	36	Nicotine tartrate
UN1660	12	Nitric oxide
UN1661	38	Nitroanilines
UN1662	37	Nitrobenzene
UN1662	37	Nitrobenzene, liquid
UN1663	38	Nitrophenols
UN1664	37E	Nitrotoluenes
UN1665	37	Nitroxylenes
UN1669	36	Pentachloroethane
UN1670	42	Perchloromethyl mercaptan
UN1671	38	Phenol, solid
UN1672	36	Phenylcarbylamine chloride
UN1673	38	Phenylenediamines
UN1674	36	Phenylmercuric acetate
UN1677	36	Potassium arsenate
UN1678	36	Potassium arsenite
UN1679	42	Potassium cuprocyanide
UN1680	42	Potassium cyanide, solid
UN1680	42	Potassium cyanide, solution
UN1681	36	Rodenticides, n.o.s.
UN1683	36	Silver arsenite
UN1684	36	Silver cyanide
UN1685	36	Sodium arsenate
UN1686	36	Sodium arsenite, aqueous solutions
UN1687	41	Sodium azide
UN1688	37	Sodium cacodylate
UN1689	42	Sodium cyanide, solid
UN1689	42	Sodium cyanide, solution
UN1690	39	Sodium fluoride
UN1691	36	Strontium arsenite, solid
UN1692	36	Strychnine
UN1692	36	Strychnine mixtures
UN1692	36	Strychnine salt mixtures
UN1692	36	Strychnine salts
NA1693	38	Tear gas devices with more than 2 % tear gas substances, by mass
UN1693	38	Tear gas substances, liquid or solid, n.o.s.
UN1694	38	Bromobenzyl cyanides
UN1695	19E	Chloroacetone, stabilized

UN1695	19E	Monochloroacetone, stabilized
UN1697	38	Chloroacetophenone, liquid or solid
UN1698	39	Diphenylamine chloroarsine
UN1699	36	Diphenylchloroarsine
UN1700	38	Tear gas candles
UN1701	37	Xylyl Bromide
UN1702	36	Tetrachloroethane
UN1703	07	Tetraethyl dithiopyrophosphate and gases, in solution or mixtures
UN1704	38	Tetraethyl dithiopyrophosphate, dry, liquid, or mixture
UN1705	07	Tetraethyl pyrophosphate and compressed gas mixtures
NA1707	36	Thallium salt, solid, n.o.s.
NA1707	36	Thallium sulphate, solid
UN1707	36	Thallium compounds, n.o.s.
UN1708	38	Toluidines
UN1709	38	2,4-Toluylenediamine
UN1710	39	Trichloroethylene
UN1711	38	Xylidines
UN1712	36	Zinc arsenate
UN1712	36	Zinc arsenate and zinc arsenite mixtures
UN1712	36	Zinc arsenite
UN1713	36	Zinc cyanide
UN1714	27	Zinc phosphide
UN1715	40	Acetic anhydride
UN1716	41	Acetyl bromide
UN1717	40	Acetyl chloride
UN1718	38	Butyl acid phosphate
UN1719	39	Caustic alkali liquid, n.o.s.
UN1722	40	Allyl chlorocarbonate
UN1722	40	Allyl chloroformate
UN1723	19	Allyl iodide
UN1724	40E	Allyltrichlorosilane, stabilized
UN1725	42	Aluminum bromide, anhydrous
UN1726	42	Aluminum chloride, anhydrous
UN1727	39	Ammonium bifluoride, solid
UN1727	39	Ammonium hydrogen fluoride, solid
UN1728	40	Amyltrichlorosilane
UN1729	41	Anisoyl chloride
UN1730	42	Antimony pentachloride
UN1730	42	Antimony pentachloride, liquid
UN1731	42	Antimony pentachloride, solution
UN1732	42	Antimony pentafluoride
UN1733	42	Antimony trichloride, solid or solution
UN1736	41	Benzoyl chloride
UN1737	41	Benzyl bromide
UN1738	41	Benzyl chloride
UN1739	41	Benzyl chloroformate
UN1740	39	Bifluorides, n.o.s.
UN1741	07	Boron trichloride
UN1742	40	Boron trifluoride acetic acid complex
UN1743	41	Boron trifluoride propionic acid complex
UN1744	39	Bromine
UN1744	39	Bromine solutions
UN1745	28	Bromine pentafluoride
UN1746	28	Bromine trifluoride
UN1747	40	Butyltrichlorosilane
UN1748	30	Calcium hypochlorite, dry
UN1748	30	Calcium hypochlorite mixtures
UN1749	12	Chlorine trifluoride
UN1750	38	Chloroacetic acid, liquid

UN1750	38	Chloroacetic acid, solution
UN1751	38	Chloroacetic acid, solid
UN1752	41	Chloroacetyl chloride
UN1753	41	Chlorophenyltri-chlorosilane
UN1754	42	Chlorosulphonic acid
UN1755	39	Chromic acid, solution
UN1756	39	Chromic fluoride, solid
UN1757	39	Chromic fluoride, solution
UN1758	42	Chromium oxychloride
NA1759	39	Ferrous chloride, solid
NA1759	39	Medicines, corrosive, solid, n.o.s.
NA1759	39	Stannous chloride, solid
UN1759	39	Corrosive solid, n.o.s.
NA1760	39	Aluminum phosphate, solution
NA1760	39	Aluminum sulphate, solution
NA1760	38	Aminopro-pyldiethanolamine
NA1760	38	N-Aminopropylmorpholine
NA1760	38	Bis-(aminopropyl) piperazine
NA1760	38	Chemical kit
NA1760	38	Compounds, cleaning liquid
NA1760	38	Di-(aminopropyl) piperazine
NA1760	38	2,2-Dichloropropionic acid
NA1760	41	Ethyl phosphonothioic dichloride, anhydrous
NA1760	41	Ethyl phosphorodichloridate
NA1760	39	Ferrous chloride, solution
NA1760	38	Hexanoic acid
NA1760	38	Isopentanoic acid
NA1760	39	Medicines, corrosive, liquid, n.o.s.
NA1760	41	Methyl phosphonothioic dichloride, anhydrous
NA1760	42	Titanium sulphate solution
NA1760	38	Valeric acid
NA1760	39	White acid
UN1760	39	Corrosive liquid, n.o.s.
UN1761	39	Cupriethylenediamine solution
UN1762	41	Cyclohexenyltri-chlorosilane
UN1763	41	Cyclohexyltrichlorosilane
UN1764	38	Dichloroacetic acid
UN1765	41	Dichloroacetyl chloride
UN1766	41	Dichlorophenyltri-chlorosilane
UN1767	41	Diethyldichlorosilane
UN1768	39	Difluorophosphoric acid, anhydrous
UN1769	41	Diphenyldichlorosilane
UN1770	38	Diphenylmethyl bromide
UN1771	41	Dodecyltrichlorosilane
UN1773	42	Ferric chloride
UN1774	39	Fire extinguisher charges, *corrosive liquid*
UN1775	39	Fluoboric acid
UN1776	39	Fluorophosphoric acid, anhydrous
UN1777	42	Fluorosulphonic acid
UN1778	39	Fluosilicic acid
UN1778	39	Hydrofluorosilicic acid
UN1779	38	Formic acid
UN1780	41	Fumaryl chloride
UN1781	41	Hexadecyltrichlorosilane
UN1782	39	Hexafluorophosphoric acid
UN1783	38	Hexamethylenediamine, solution
UN1784	41	Hexyltrichlorosilane
UN1786	42	Hydrofluoric acid and sulphuric acid mixtures
UN1787	39	Hydriodic acid, solution
UN1788	39	Hydrobromic acid, solution

UN1789	42	Hydrochloric acid, solution or Hydrochloric acid
UN1789	42	Muriatic acid
NA1790	42	Etching acid, liquid, n.o.s.
UN1790	42	Hydrofluoric acid, solution
UN1791	39	Hypochlorite solutions
UN1792	42	Iodine monochloride
UN1793	38	Isopropyl acid phosphate
NA1794	39	Lead dross
UN1794	39	Lead sulphate
UN1796	42	Nitrating acid mixtures
UN1798	42	Aqua regia
UN1798	42	Nitrohydrochloric acid
UN1799	41	Nonyltrichlorosilane
UN1800	41	Octadecyltrichlorosilane
UN1801	41	Octyltrichlorosilane
UN1802	30	Perchloric acid
UN1803	38	Phenolsulphonic acid, liquid
UN1804	41	Phenyltrichlorosilane
UN1805	39	Phosphoric acid
UN1806	42	Phosphorus pentachloride
UN1807	42	Phosphorus anhydride
UN1807	42	Phosphorus pentoxide
UN1808	42	Phosphorus tribromide
UN1809	42	Phosphorus trichloride
UN1810	42	Phosphorus oxychloride
UN1811	39	Potassium bifluoride
UN1812	39	Potassium fluoride
UN1812	39	Potassium fluoride, solution
UN1813	39	Caustic potash, solid
UN1813	39	Potassium hydroxide, solid
UN1814	39	Caustic potash, solution
UN1814	39	Potassium hydroxide, solution
UN1815	40	Propionyl chloride
UN1816	40	Propyltrichlorosilane
UN1817	42	Pyrosulphuryl chloride
UN1818	42	Silicon tetrachloride
UN1819	39	Sodium aluminate, solution
UN1821	39	Sodium bisulphate, solid
UN1821	39	Sodium hydrogen sulphate, solid
UN1823	39	Caustic soda, solid
UN1823	39	Sodium hydroxide, solid
UN1824	39	Caustic soda, solution
UN1824	39	Sodium hydroxide, solution
UN1825	42	Sodium monoxide
UN1826	42	Nitrating acid mixtures, spent
UN1827	42	Stannic chloride, anhydrous
UN1827	42	Tin tetrachloride, anhydrous
UN1828	41	Sulphur chloride(s)
NA1829	42	Sulphur trioxide, uninhibited
UN1829	42	Sulphur trioxide, inhibited
UN1830	42	Sulphuric acid
UN1831	42	Oleum
UN1831	42	Sulphuric acid, fuming
UN1832	42	Sulphuric acid, spent
UN1833	39	Sulphurous acid
UN1834	42	Sulphuryl chloride
UN1835	38	Tetramethylammonium hydroxide
UN1836	42	Thionyl chloride
UN1837	42	Thiophosphoryl chloride
UN1838	42	Titanium tetrachloride
UN1839	38	Trichloroacetic acid
UN1840	39	Zinc chloride, solution
UN1841	20	Acetaldehyde ammonia
UN1843	29	Ammonium dinitro-o-cresolate
UN1845	09	Carbon dioxide, solid
UN1845	09	Carbon ice

UN1845	09	Dry ice
UN1846	36	Carbon tetrachloride
UN1847	40	Potassium sulphide, hydrated
UN1848	19	Propionic acid
UN1849	40	Sodium sulphide, hydrated
UN1850	19	Eradicators, grease, liquid
UN1850	19	Eradicators, paint, liquid
UN1851	36	Medicines, n.o.s.
UN1851	36	Medicines, liquid, poisonous, n.o.s.
UN1854	25	Barium alloys, pyrophoric
UN1855	25	Calcium, pyrophoric
UN1855	25	Calcium alloys, pyrophoric
UN1856	20	Rags, oily
UN1857	20	Textile, waste, wet, n.o.s.
UN1858	06P	Hexafluoropropylene
UN1859	07	Silicon tetrafluoride
UN1860	04P	Vinyl fluoride, inhibited
UN1862	18	Ethyl crotonate
UN1863	14	Fuel, aviation, turbine engine
UN1864	14	Gas drips, hydrocarbon
UN1865	16	n-Propyl nitrate
UN1866	14	Resin solution, *flammable*
UN1867	20	Cigarettes, self-lighting
UN1868	23	Decaborane
UN1869	26	Magnesium
UN1869	26	Magnesium alloys
UN1869	26	Magnesium scrap
UN1870	26	Potassium borohydride
UN1871	52	Titanium hydride
UN1872	30	Lead dioxide
UN1872	30	Lead peroxide
UN1873	31	Perchloric acid
UN1884	42	Barium oxide
UN1885	38	Benzidine
UN1886	41	Benzylidene chloride
UN1887	39	Bromochloromethane
UN1888	36	Chloroform
UN1889	42	Cyanogen bromide
UN1891	17	Ethyl bromide
UN1892	36	Ethyldichloroarsine
UN1894	36	Phenylmercuric hydroxide
UN1895	36	Phenylmercuric nitrate
UN1896	16	Resin solution, poisonous
UN1897	39	Perchloroethylene
UN1897	39	Tetrachloroethylene
UN1898	41	Acetyl iodide
UN1902	38	Diisooctyl acid phosphate
UN1903	38	Disinfectants, corrosive, liquid, n.o.s.
UN1905	39	Selenic acid or Selenic acid, liquid
UN1906	38	Sludge acid
UN1907	39	Soda lime
UN1908	39E	Sodium chlorite, solution
UN1910	42	Calcium oxide
NA1911	13	Diborane mixtures
UN1911	13	Diborane
UN1911	13	Diborane mixtures
UN1912	05	Methyl chloride and methylene chloride mixtures
UN1913	08	Neon, refrigerated liquid
UN1914	19	Butylpropionate
UN1915	15	Cyclohexanone
UN1916	37	2,2'-Dichlorodiethyl ether
UN1916	37	Dichloroethyl ether
UN1917	18P	Ethyl acrylate, inhibited
UN1918	19	Cumene
UN1918	19	Isopropylbenzene
UN1919	18P	Methyl acrylate, inhibited
UN1920	15	Nonanes
UN1921	19P	Propyleneimine, inhibited
UN1922	18	Pyrrolidine
UN1923	25	Calcium dithionite

UN1923	25	Calcium hydrosulphite
UN1924	25	Ethyl aluminum dichloride
UN1925	25	Ethyl aluminum sesquichloride
UN1926	25	Methyl aluminum sesquibromide
UN1927	25	Methyl aluminum sesquichloride
UN1928	25	Methyl magnesium bromide in ethyl ether
UN1929	25	Potassium dithionite
UN1929	25	Potassium hydrosulphite
UN1930	25	Triisobutyl aluminum
UN1931	25	Zinc dithionite
UN1931	25	Zinc hydrosulphite
UN1932	25	Zirconium scrap
UN1935	42	Cyanide solutions, n.o.s.
UN1938	41	Bromoacetic acid
UN1939	42	Phosphorus oxybromide
UN1940	38	Thioglycolic acid
UN1941	39	Dibromodifluoromethane
NA1942	30	Ammonium nitrate fertilizers
UN1942	30	Ammonium nitrate
UN1944	20	Matches, safety
UN1945	20	Matches, wax "vesta"
UN1950	12	Aerosols
UN1951	08	Argon, pressurized liquid
UN1951	08	Argon, refrigerated liquid
UN1952	06	Carbon dioxide and ethylene oxide mixtures *with not more than 6 % ethylene oxide.*
UN1953	05	Compressed gases, toxic, flammable, n.o.s.
NA1954	04	Dispersant gas, n.o.s. (cryogenic liquid)
NA1954	04	Refrigerant gas, n.o.s. (cryogenic liquid)
NA1954	04	Refrigerating machines *containing flammable, non-poisonous, non-corrosive, liquefied gas*
UN1954	04	Compressed or Liquefied gases, flammable, n.o.s.
UN1954	04	Liquefied gases, flammable, n.o.s.
UN1954	04	Liquefied or Compressed gases, flammable, n.o.s.
NA1955	07	Chloropicrin and non-flammable, non-liquefied compressed gas mixture
NA1955	07	Organic phosphate compound mixed with compressed gas
NA1955	07	Organic phosphate mixed with compressed gas
NA1955	07	Organic phosphorus compound mixed with compressed gas
UN1955	07	Compressed or Liquefied gases, toxic, n.o.s.
UN1955	07	Liquefied gases, toxic, n.o.s.
NA1956	06	Accumulators, pressurized
NA1956	06	Hexafluoropropylene oxide
NA1956	06	Mine rescue equipment containing carbon dioxide
UN1956	06	Compressed or Liquefied gases, n.o.s.
UN1956	06	Liquefied gases, n.o.s.
UN1956	06	Liquefied or Compressed gases, n.o.s.
UN1957	04	Deuterium
UN1958	06	Dichlorotetrafluoroethane
UN1959	04P	1,1-Difluoroethylene
UN1960	04	Engine starting fluid *with flammable gas*
NA1961	04	Ethane-Propane mixture, refrigerated liquid

UN1961	04	Ethane, refrigerated, liquid
UN1962	04P	Ethylene or Ethylene, compressed
UN1963	08	Helium, refrigerated liquid
UN1964	04	Hydrocarbon gases, compressed or non-liquefied, n.o.s.
UN1964	04	Hydrocarbon gases mixtures, compressed or non-liquefied, n.o.s.
UN1965	04	Hydrocarbon gases liquefied, n.o.s. or Hydrocarbon gases mixtures, liquefied, n.o.s.
UN1966	04	Hydrogen, liquefied
UN1966	04	Hydrogen, refrigerated liquid
NA1967	07	Parathion(s) and compressed gas mixture
UN1967	07	Insecticide gases, toxic, n.o.s.
UN1968	06	Insecticide gases, n.o.s.
UN1969	04	Isobutane or Isobutane mixtures
UN1970	08	Krypton, refrigerated liquid
UN1971	04	Methane, compressed
UN1971	04	Natural gas, compressed (with high methane content)
UN1972	04	Methane, refrigerated liquid
UN1972	04	Natural gas, refrigerated liquid (with high methane content)
UN1973	06	Chlorodifluoromethane and chloropentafluoro-ethane mixture
UN1974	06	Chlorodifluoro-bromomethane
UN1975	12	Nitric oxide and dinitrogen tetroxide mixtures
UN1975	12	Nitric oxide and nitrogen dioxide mixtures
UN1975	12	Nitric oxide and nitrogen tetroxide mixtures
UN1976	06	Octafluorocyclobutane
UN1977	08	Nitrogen, pressurized liquid
UN1977	08	Nitrogen, refrigerated liquid
UN1978	04	Propane
UN1978	04	Propane mixtures
UN1979	08	Rare gases mixtures
NA1980	10	Helium-Oxygen, mixture
UN1980	10	Rare gases and oxygen mixtures
UN1981	08	Rare gases and nitrogen mixtures
UN1982	06	Tetrafluoromethane
UN1983	06	Chlorotrifluoroethane
UN1984	06	Trifluoromethane
NA1986	16	Denatured alcohol
NA1986	16	Propargyl alcohol
UN1986	16	Alcohols, toxic, n.o.s.
UN1987	14	Alcohols, n.o.s.
UN1988	16	Aldehydes, toxic, n.o.s.
NA1989	38	Benzaldehyde
UN1989	18	Aldehydes, n.o.s.
UN1991	17P	Chloroprene, inhibited
UN1992	16	Flammable liquid, poisonous, n.o.s.
NA1993	15	Combustible liquid, n.o.s.
NA1993	15	Compounds, cleaning liquid
NA1993	15	Creosote, coal tar
NA1993	15	Diesel fuel
NA1993	15	Fuel oil, no. 1,2,4,5,6
NA1993	14	Medicines, flammable, liquid, n.o.s.
NA1993	14	Refrigerating machines
UN1993	14	Flammable liquid, n.o.s.
UN1994	23E	Iron pentacarbonyl

NA1999	16	Asphalt at or above its flash point
UN1999	16	Tars, liquid
UN2000	20	Celluloid
UN2001	20	Cobalt naphthenates, powder
UN2002	20	Celluloid, scrap
UN2003	25	Metal alkyls, n.o.s.
UN2003	25	Metal aryls, n.o.s.
UN2004	25	Magnesium diamide
UN2005	25	Magnesium diphenyl
UN2006	23	Plastic, nitrocellulose based, spontaneously combustible, n.o.s.
UN2006	23	Plastic, nitrocellulose base, self-heating, n.o.s.
UN2008	25	Zirconium powder, dry
UN2009	25	Zirconium, dry, *finished sheets, strips or coiled wire*
UN2010	26	Magnesium hydride
UN2011	27	Magnesium phosphide
UN2012	27	Potassium phosphide
UN2013	27	Strontium phosphide
UN2014	30	Hydrogen peroxide, aqueous solutions
UN2015	31	Hydrogen peroxide, aqueous solutions, stabilized
UN2015	31	Hydrogen peroxide, stabilized
UN2016	39	Ammunition, toxic, non-explosive
UN2017	38	Ammunition, tear-producing, non-explosive
UN2018	37	Chloroanilines, solid
UN2019	37	Chloroanilines, liquid
NA2020	38	Trichlorophenol
UN2020	38	Chlorophenols, solid
UN2021	38	Chlorophenols, liquid
UN2022	38	Cresylic acid
UN2023	18P	Epichlorohydrin
UN2024	36	Mercury compounds, liquid, n.o.s.
NA2025	36	Mercuric subsulphate, solid
UN2025	36	Mercury compounds, solid, n.o.s.
UN2026	36	Phenylmercuric compounds, n.o.s.
UN2027	36	Sodium arsenite, solid
UN2028	38	Bombs, smoke, non-explosive
UN2029	18E	Hydrazine, anhydrous
UN2029	18E	Hydrazine, aqueous solutions *with more than 64% hydrazine, by mass*
UN2030	19E	Hydrazine, aqueous solutions *with not more than 64% hydrazine, by mass*
UN2030	19E	Hydrazine hydrate *with not more than 64% hydrazine, by mass*
UN2031	42	Nitric acid, *other than red fuming*
UN2032	42	Nitric acid (red), fuming
UN2033	39	Potassium monoxide
UN2033	39	Potassium oxide
UN2034	04	Hydrogen and methane, mixtures, compressed
UN2035	06	Trifluoroethane, compressed
UN2036	08	Xenon
UN2037	04	Receptables, small, with flammable gas
UN2038	37E	Dinitrotoluenes, liquid
UN2038	37E	Dinitrotoluenes, solid
UN2044	04	2,2-Dimethyl propane, *other than pentane and isopentane*
UN2045	18	Isobutyl aldehyde
UN2045	18	Isobutyraldehyde

UN2046	19	Cymenes
NA2047	18	Dichloropropene and dichloropropane mixtures
NA2047	18	Dichloropropene and propylene dichloride mixtures
UN2047	19	Dichloropropene
UN2048	19E	Dicyclopentadiene
UN2049	17	Diethylbenzene
UN2050	14	Diisobutylene, isomeric compounds
UN2051	18	Dimethylethanolamine
UN2052	14	Dipentene
UN2053	17	Methyl isobutyl carbinol
UN2054	19	Morpholine
UN2055	14P	Styrene monomer, inhibited
UN2056	14	Tetrahydrofuran
UN2057	14	Tripropylene
UN2058	18	Valeraldehyde
UN2059	14E	Nitrocellulose solution, flammable
UN2060	15E	Nitrocellulose solution, flammable
UN2067	30	Ammonium nitrate fertilizers
UN2068	30	Ammonium nitrate fertilizers
UN2069	30	Ammonium nitrate fertilizers
UN2070	30	Ammonium nitrate fertilizers
UN2071	29	Ammonium nitrate fertilizers
UN2072	30	Ammonium nitrate fertilizers, n.o.s., *solid*
UN2073	07	Ammonia solutions *with more than 35 per cent but not more than 50 per cent ammonia*
UN2073	07	Ammonium hydroxide *with more than 35 percent but not more than 50 percent ammonia*
UN2074	38P	Acrylamide
UN2075	38	Chloral, anhydrous, inhibited
UN2076	38	Cresols
UN2077	38	alpha-Naphthylamine
UN2078	41	Toluene diisocyanate
UN2079	38	Diethylenetriamine
UN2080	32	Acetyl acetone peroxide
UN2080	32	3,5-Dimethyl-3,5-dihydro-xydioxolane-1,2
UN2081	34	Acetyl benzoyl peroxide
UN2082	35	Acetyl cyclohexane-sulphonyl peroxide
UN2083	35	Acetyl cyclohexane-sulphonyl peroxide
UN2084	35	Acetyl peroxide
UN2084	35	Diacetyl peroxide
UN2085	33	Benzoyl peroxide
UN2085	33	Dibenzoyl peroxide
UN2087	33	Benzoyl peroxide
UN2087	33	Dibenzoyl peroxide
UN2088	33	Benzoyl peroxide
UN2088	33	Dibenzoyl peroxide
UN2089	33	Benzoyl peroxide
UN2089	33	Dibenzoyl peroxide
UN2090	33	Benzoyl peroxide
UN2090	33	Dibenzoyl peroxide
UN2091	32	tert-Butyl cumyl peroxide
UN2091	32	tert-Butyl isopropyl benzene hydroperoxide
UN2092	34	tert-Butyl hydroperoxide
UN2093	34	tert-Butyl hydroperoxide
UN2094	34	tert-Butyl hydroperoxide
UN2095	32	tert-Butyl peroxyacetate
UN2096	32	tert-Butyl peroxyacetate
UN2097	32	tert-Butyl peroxybenzoate

UN2098	32	tert-Butyl peroxybenzoate
UN2099	33	tert-Butyl monoperoxymaleate
UN2100	32	tert-Butyl monoperoxymaleate
UN2101	32	tert-Butyl monoperoxymaleate
UN2102	32	tert-Butyl peroxide
UN2102	32	Di-tert-butyl peroxide
UN2103	33	tert-Butyl peroxyisopropyl carbonate
UN2104	32	tert-Butyl peroxyisononanoate
UN2104	32	tert-Butyl peroxy-3,5,5-trimethylhexanoate
UN2105	32	tert-Butyl monoperoxyphthalate
UN2106	33	Di-(tert-butylperoxy) phthalate
UN2107	33	Di-(tert-butylperoxy) phthalate
UN2108	33	Di-(tert-butylperoxy) phthalate
UN2110	35	tert-Butyl peroxypivalate
UN2111	32	2,2-Di-(tert-butylperoxy) butane
UN2112	32	1,3-Di-(2-tert-butylperoxyisopropyl) benzene
UN2112	32	1,4-Di-(2-tert-butylperoxyisopropyl) benzene
UN2112	32	1,4-Di-(2-tert-butylperoxyisopropyl) benzene and 1,3-Di-(2-tert-butylperoxyisopropyl) benzene mixtures
UN2113	32	p-Chlorobenzoyl peroxide
UN2113	32	Di-4-chlorobenzoyl peroxide
UN2114	32	p-Chlorobenzoyl peroxide
UN2114	32	Di-4-chlorobenzoyl peroxide
UN2115	32	p-Chlorobenzoyl peroxide
UN2115	32	Di-4-chlorobenzoyl peroxide
UN2116	34	Cumene hydroperoxide
UN2116	34	Cumyl hydroperoxide
UN2117	33	Cyclohexanone peroxide(s)
UN2118	34	Cyclohexanone peroxide(s)
UN2119	34	Cyclohexanone peroxide(s)
UN2120	35	Decanoyl peroxide
UN2120	35	Didecanoyl peroxide
UN2121	32	Dicumyl peroxide
UN2122	35	Di-2-(ethylhexyl) peroxydicarbonate
UN2123	35	Di-(2-ethylhexyl) peroxydicarbonate
UN2124	33	Dilauroyl peroxide
UN2124	33	Lauroyl peroxide
UN2125	34	p-Menthane hydroperoxide
UN2125	34	p-Menthyl hydroperoxide
UN2126	34	Methyl isobutyl ketone peroxide
UN2127	33	Methyl ethyl ketone peroxide(s)
UN2128	35	Di-(3,5,5-trimethyl-hexanoyl) peroxide
UN2128	35	Isononanoyl peroxide
UN2129	32	Caprylyl peroxide, solution
UN2129	35	Di-n-octanoyl peroxide
UN2129	32	Di-n-octanoyl peroxide, solution
UN2129	35	n-Octanoyl peroxide
UN2130	35	Di-n-nonanoyl peroxide
UN2130	35	Pelargonyl peroxide
NA2131	34	Peracetic acid, solution
UN2131	34	Peroxyacetic acid
UN2132	35	Dipropionyl peroxide
UN2132	35	Propionyl peroxide

UN2133	35	Diisopropyl peroxydicarbonate
UN2133	35	Isopropyl peroxydicarbonate
UN2134	35	Diisopropyl peroxydicarbonate
UN2134	35	Isopropyl peroxydicarbonate
UN2135	33	Disuccinic acid peroxide
UN2135	33	Succinic acid peroxide
UN2136	32	Tetrahydronaphthyl hydroperoxide
UN2136	32	Tetralin hydroperoxide
UN2137	32	2,4-Dichlorobenzoyl peroxide
UN2137	32	Di-2,4-dichlorobenzoyl peroxide
UN2138	32	2,4-Dichlorobenzoyl peroxide
UN2138	32	Di-2,4-dichlorobenzoyl peroxide
UN2139	32	2,4-Dichlorobenzoyl peroxide
UN2139	32	Di-2,4-dichlorobenzoyl peroxide
UN2140	32	n-Butyl-4,4-di-(tert-butylperoxy) valerate
UN2141	32	n-Butyl-4,4-di-(tert-butylperoxy) valerate
UN2142	35	tert-Butyl peroxyisobutyrate
UN2143	35	tert-Butyl peroxy-2-ethylhexanoate
UN2144	35	tert-Butyl peroxydiethylacetate
UN2145	32	1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane
UN2146	32	1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane
UN2147	32	1,1-Di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane
UN2148	32	Di-(1-hydroxycyclohexyl) peroxide
UN2149	35	Dibenzyl peroxydicarbonate
UN2150	35	Di-(sec-butyl) peroxydicarbonate
UN2151	35	Di-(sec-butyl) peroxydicarbonate
UN2152	35	Dicyclohexyl peroxydicarbonate
UN2153	35	Dicyclohexyl peroxydicarbonate
UN2154	35	Di-(4-tert-butylcyclohexyl) peroxydicarbonate
UN2155	32	2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexane
UN2156	32	2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexane
UN2157	35	2,5-Dimethyl-2,5-di-(2-ethylhexanoylperoxy) hexane
UN2158	33	2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexyne-3
UN2159	32	2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexyne-3
UN2160	32	tert-Octyl hydroperoxide
UN2160	32	1,1,3,3-Tetramethylbutyl hydroperoxide
UN2161	35	tert-Octyl peroxy-2-ethylhexanoate
UN2161	35	1,1,3,3-Tetramethylbutyl peroxy-2-ethylhexanoate
UN2162	34	Pinane hydroperoxide
UN2162	34	Pinanyl hydroperoxide
UN2163	35	Diacetone alcohol peroxides
UN2164	35	Dicetyl peroxydicarbonate
UN2165	33	3,3,6,6,9,9-Hexamethyl-1,2,4,5- tetraoxa-cyclononane

UN2166	32	3,3,6,6,9,9-Hexamethyl-1,2,4,5- tetraoxa-cyclononane
UN2167	32	3,3,6,6,9,9-Hexamethyl-1,2,4,5- tetraoxa-cyclononane
UN2168	32	2,2-Di-(4,4-di-tert-butylperoxycyclohexyl) propane
UN2169	35	n-Butyl peroxydicarbonate
UN2169	35	Di-n-butyl peroxydicarbonate
UN2170	35	n-Butyl peroxydicarbonate
UN2170	35	Di-n-butyl peroxydicarbonate
UN2171	32	Diisopropylbenzene hydroperoxide
UN2171	32	Isopropyl cumyl hydroperoxide
UN2172	33	2,5-Dimethyl-2,5-di-(benzoylperoxy) hexane
UN2173	33	2,5-Dimethyl-2,5-di-(benzoylperoxy) hexane
UN2174	33	2,5-Dimethyl-2,5-dihydroperoxy hexane
UN2174	33	Dimethylhexane dihydroperoxide
UN2175	35	Diethyl peroxydicarbonate
UN2176	35	Di-n-propyl peroxydicarbonate
UN2177	35	tert-Butyl peroxyneodecanoate
UN2178	33	2,2-Dihydroperoxy propane
UN2179	33	1,1-Di-(tert-butylperoxy) cyclohexane
UN2180	33	1,1-Di-(tert-butylperoxy) cyclohexane
UN2182	35	Diisobutyryl peroxide
UN2183	32	tert-Butyl peroxycrotonate
UN2184	33	Ethyl-3,3-di-(tert-butylperoxy) butyrate
UN2185	32	Ethyl-3,3-di-(tert-butylperoxy) butyrate
UN2186	07	Hydrogen chloride, refrigerated liquid
UN2187	09	Carbon dioxide, liquefied
UN2187	09	Carbon dioxide, refrigerated liquid
UN2188	05	Arsine
UN2189	05	Dichlorosilane
UN2190	12	Oxygen difluoride
UN2191	07	Sulphuryl fluoride
UN2192	05	Germane
UN2193	06	Hexafluoroethane
UN2194	07	Selenium hexafluoride
UN2195	07	Tellurium hexafluoride
UN2196	07	Tungsten hexafluoride
UN2197	07	Hydrogen iodide, anhydrous
UN2198	07	Phosphorus pentafluoride
UN2199	13	Phosphine
UN2200	04P	Allene
UN2200	04P	Propadiene, inhibited
UN2201	10	Nitrous oxide, refrigerated liquid
UN2202	05	Hydrogen selenide, anhydrous
UN2203	13E	Silane
UN2204	05	Carbonyl sulphide
UN2205	38	Adiponitrile
UN2206	40	Isocyanates, n.o.s.
UN2206	40	Isocyanate solutions, n.o.s.
UN2207	40	Isocyanates, n.o.s.
UN2207	40	Isocyanate solutions, n.o.s.
UN2208	30	Bleaching powder
UN2208	30	Calcium hypochlorite mixtures, dry
UN2209	19	Formaldehyde, solutions
UN2210	25	Maneb or Maneb preparations

UN2211	20	Polymeric beads, expandable, *evolving flammable vapour*
UN2212	49	Asbestos, blue or Asbestos, brown
UN2213	20	Paraformaldehyde
UN2214	41	Phthalic anhydride
NA2215	41	Maleic acid
UN2215	41	Maleic acid
UN2215	41	Maleic anhydride
UN2216	20	Fish meal, stabilized
UN2216	20	Fish scrap, stabilized
UN2217	23	Seed cake
UN2218	19P	Acrylic acid, inhibited
UN2219	17	Allyl glycidyl ether
UN2222	15	Anisole
UN2224	37	Benzonitrile
UN2225	41	Benzene sulphonyl chloride
UN2226	41	Benzotrichloride
UN2227	19P	n-Butyl methacrylate
UN2228	38	Butylphenols, liquid
UN2229	38	Butylphenols, solid
UN2232	38	Chloroacetaldehyde
UN2233	37	Chloroanisidines
UN2234	19	Chlorobenzotrifluorides
UN2235	38	Chlorobenzylchlorides
UN2236	41	3-Chloro-4-methylphenylisocyanate
UN2237	38	Chloronitroanilines
UN2238	18	Chlorotoluenes
UN2239	38	Chlorotoluidines, liquid or solid
UN2240	39	Chromosulphuric acid
UN2241	14	Cycloheptane
UN2242	14	Cycloheptene
UN2243	18	Cyclohexyl acetate
UN2244	17	Cyclopentanol
UN2245	15	Cyclopentanone
UN2246	14	Cyclopentene
UN2247	15	n-Decane
UN2248	38	Di-n-butyl amine
UN2249	38	Dichlorodimethyl ether, symmetrical
UN2250	41	Dichlorophenyl isocyanates
UN2251	14	Bicyclo [2.2.1]hepta-2,5-diene
UN2251	14	Dicycloheptadiene
UN2251	14	2,5-Norbornadiene
UN2252	14	1,2-Dimethoxyethane
UN2253	38	N,N- Dimethylaniline
UN2254	20	Matches, fusee
NA2255	32	Polyester resin kits
UN2255	33	Organic peroxides, samples, n.o.s.
UN2256	14	Cyclohexene
UN2257	26	Potassium
UN2257	26	Potassium, metal
UN2258	19	1,2-Propylenediamine
UN2259	38	Triethylenetetramine
UN2260	19	Tripropylamine
UN2261	38	Xylenols
UN2262	41	Dimethylcarbamoyl chloride
UN2263	14	Dimethylcyclohexanes
UN2264	19	Dimethylcyclohexylamine
UN2265	19	N,N-Dimethylformamide
UN2266	19	Dimethyl-N-propylamine
UN2267	41	Dimethyl chlorothiophosphate
UN2267	41	Dimethyl thiophosphoryl chloride
UN2269	38	Iminobispropylamine
UN2269	38	3,3'-Iminodipropylamine
UN2270	18	Ethylamine, aqueous solutions
UN2271	15	Ethyl amyl ketone
UN2272	38	N-Ethylaniline
UN2273	38	2-Ethylaniline

UN2274	38	N-Ethyl-N-benzylaniline
UN2275	17	2-Ethylbutanol
UN2276	38	2-Ethylhexylamine
UN2277	19P	Ethyl methacrylate
UN2278	14	n-Heptene
UN2279	36	Hexachlorobutadiene
UN2280	38	Hexamethylenediamine, solid
UN2281	41	Hexamethylene-diisocyanate
UN2282	17	Hexanols
UN2283	19EP	Isobutyl methacrylate
UN2284	17	Isobutyronitrile
UN2285	41	Isocyanatobenzo-trifluorides
UN2286	15	Pentamethylheptane
UN2287	14	Isoheptene
UN2288	14	Isohexene
UN2289	38	Isophoronediamine
UN2290	41	Isophoronediisocyanate
NA2291	36	Lead chloride
NA2291	36	Lead fluoborate
NA2291	36	Lead sulphide
UN2291	36	Lead compounds, soluble, n.o.s.
UN2293	15	4-Methoxy-4-methylpentan-2-one
UN2294	38	N-Methyl aniline
UN2295	40	Methyl chloroacetate
UN2296	14	Methyl cyclohexane
UN2297	15	Methyl cyclohexanone
UN2298	14	Methyl cyclopentane
UN2299	40	Methyl dichloroacetate
UN2300	38	2-Methyl-5-ethyl pyridine
UN2301	14	2-Methylfuran or Methylfuran
UN2302	15	5-Methylhexan-2-one
UN2303	15	Isopropenylbenzene
UN2304	20	Naphthalene, molten
UN2305	38E	Nitrobenzenesulphonic acid
UN2306	37	Nitrobenzotrifluorides
UN2307	37	3-Nitro-4-chlorobenzotrifluoride
UN2308	42	Nitrosylsulphuric acid
UN2309	14P	Octadiene
UN2310	15	Pentan-2,4-dione
UN2311	38	Phenetidines
UN2312	38	Phenol, molten
UN2313	18	Picolines
UN2315	51	PCB
UN2315	51	Polychlorinated biphenyls
UN2316	42	Sodium cuprocyanide, solid
UN2317	42	Sodium cuprocyanide, solution
UN2318	23	Sodium hydrosulphide, solid
UN2319	15	Terpene hydrocarbons,n.o.s.
UN2320	38	Tetraethylenepentamine
UN2321	38	Trichlorobenzenes, liquid
UN2322	37	Trichlorobutene
UN2323	41	Triethyl phosphite
UN2324	15	Triisobutylene
UN2325	17	1,3,5-Trimethylbenzene
UN2326	38	Trimethylcyclohexylamine
UN2327	38	Trimethylhexamethylene-diamine
UN2328	41	Trimethylhexamethylene-diisocyanate
UN2329	27	Trimethyl phosphite
UN2330	15	Undecane
UN2331	39	Zinc chloride, anhydrous
UN2332	19	Acetaldehyde oxime
UN2333	19	Allyl acetate
UN2334	18	Allylamine
UN2335	16	Allyl ethyl ether
UN2336	18	Allyl formate

PIN	GUIDE	SHIPPING NAME
UN2337	16	Phenyl mercaptan
UN2338	16	Benzotrifluoride
UN2339	17	2-Bromobutane
UN2340	16	2-Bromoethyl ethyl ether
UN2341	18	1-Bromo-3-methylbutane
UN2342	19	Bromomethylpropanes
UN2343	18	2-Bromopentane
UN2344	18	2-Bromopropane
UN2345	18	3-Bromopropyne
UN2346	14	Butanedione
UN2346	14	Diacetyl
UN2347	16	Butyl mercaptan
UN2348	19P	Butyl acrylate, inhibited
UN2350	14	Butyl methyl ether
UN2351	17	Butyl nitrites
UN2352	14P	Butyl vinyl ether, inhibited
UN2353	40	Butyryl chloride
UN2354	17	Chloromethyl ethyl ether
UN2356	18	2-Chloropropane
UN2357	19	Cyclohexylamine
UN2358	15	Cyclooctatetraene
UN2359	19	Diallylamine
UN2360	15P	Diallylether
UN2361	19	Diisobutylamine
UN2362	18	1,1-Dichloroethane
UN2363	16	Ethyl mercaptan
UN2364	15	n-Propyl benzene
UN2366	15	Diethyl carbonate
UN2367	18	alpha-Methyl valeraldehyde
UN2368	14	Pinene or alpha-Pinene
UN2369	37	Ethylene glycol monobutyl ether
UN2370	14	1-Hexene
UN2371	14	Isopentenes
UN2372	18	1,2-Di(dimethylamino) ethane
UN2373	14	Diethoxymethane
UN2374	14	3,3-Diethoxypropene
UN2375	26	Diethyl sulphide
UN2376	14	2,3-Dihydropyran or Dihydropyran
UN2377	14	1,1-Dimethoxyethane
UN2378	18	2-Dimethylamino-acetonitrile
UN2379	18	1,3-Dimethylbutylamine
UN2380	14	Dimethyldiethoxysilane
UN2381	18	Dimethyl disulphide
UN2382	16	Dimethylhydrazine, symmetrical or 1,2-Dimethylhydrazine
UN2383	18	Dipropylamine
UN2384	14	Dipropyl ether
UN2385	18	Ethyl isobutyrate
UN2386	18	1-Ethyl piperidine
UN2387	17	Fluorobenzene
UN2388	16	Fluorotoluenes
UN2389	14	Furan
UN2390	16	2-Iodobutane
UN2391	16	Iodomethylpropanes
UN2392	17	Iodopropanes
UN2393	18	Isobutyl formate
UN2394	18	Isobutyl propionate
UN2395	40	Isobutyryl chloride
UN2396	19P	Methacrylaldehyde
UN2397	14	3-Methyl butan-2-one
UN2398	14	Methyl-tert-butylether
UN2399	18	1-Methylpiperidine
UN2400	18	Methyl isovalerate
UN2401	19	Piperidine
NA2402	16	Isopropyl mercaptan
NA2402	16	Propyl mercaptan
UN2402	16	Propanethiols
UN2403	18P	Isopropenyl acetate
UN2404	17	Propionitrile
UN2405	19	Isopropyl butyrate
UN2406	18	Isopropyl isobutyrate
UN2407	40	Isopropyl chloroformate

ID	GUIDE	SHIPPING NAME
UN2409	18	Isopropyl propionate
UN2410	18	1,2,3,6-Tetrahydropyridine
UN2411	17	Butyronitrile
UN2412	16	Tetrahydrothiophene
UN2413	40	Tetrapropylorthotitanate
UN2414	16	Thiophene
UN2416	40	Trimethyl borate
UN2417	07	Carbonyl fluoride
UN2418	07	Sulphur tetrafluoride
UN2419	04	Bromotrifluoroethylene
UN2420	07	Hexafluoroacetone
UN2421	12	Nitrogen trioxide
NA2422	06	Perfluoro-2-butene
UN2422	06	Octafluorobut-2-ene
UN2424	06	Octafluoropropane
UN2426	30	Ammonium nitrate, liquid *(hot concentrated solution)*
UN2427	29	Potassium chlorate, solution
UN2428	29	Sodium chlorate, aqueous solution
UN2429	29	Calcium chlorate, aqueous solution
UN2430	38	Alkyl phenols, solid, n.o.s.
UN2431	38	Anisidines, liquid or solid
UN2432	38	N,N- Diethylaniline
UN2433	37	Chloronitrotoluenes
UN2434	41	Dibenzyldichlorosilane
UN2435	41	Ethylphenyldichlorosilane
UN2436	18	Thioacetic acid
UN2437	40	Methylphenyldichloro-silane
UN2438	40	Trimethyl acetyl chloride
UN2439	39	Sodium bifluoride
UN2439	39	Sodium hydrogen fluoride
UN2440	39	Stannic chloride, pentahydrate
UN2440	39	Tin tetrachloride, pentahydrate
UN2441	25	Titanium trichloride, pyrophoric or Titanium trichloride mixtures, pyrophoric
UN2442	41	Trichloroacetyl chloride
NA2443	42	Vanadium oxytrichloride and titanium tetrachloride, mixture
UN2443	42	Vanadium oxytrichloride
UN2444	42	Vanadium tetrachloride
UN2445	25	Lithium alkyls
UN2446	38	Nitrocresols
UN2447	24	Phosphorus, white, molten
NA2448	20	Sulphur, molten
UN2448	20	Sulphur, molten
NA2449	39	Ammonium oxalate
UN2449	38	Oxalates, water soluble
UN2451	12	Nitrogen trifluoride
UN2452	04P	Ethyl acetylene, inhibited
UN2453	04	Ethyl fluoride
UN2454	04	Methyl fluoride
UN2455	05	Methyl nitrite
UN2456	18P	2-Chloropropene
UN2457	14	2,3-Dimethylbutane
UN2458	14	Hexadiene
UN2459	14	2-Methyl-1-butene
UN2460	14	2-Methyl-2-butene
UN2461	14	Methylpentadiene
UN2462	14	Methyl pentane
UN2463	26	Aluminum hydride
UN2464	30	Beryllium nitrate
NA2465	30	Potassium dichloro-s-triazinetrione, dry
UN2465	30	Dichloroisocyanuric acid, dry
UN2465	30	Dichloroisocyanuric acid salts
UN2465	30	Sodium dichloro-s-triazinetrione, dry
UN2466	30	Potassium superoxide

UN2467	29	Sodium percarbonates
NA2468	30	Trichloro-s-triazinetrione, dry
NA2468	30	(mono)-(Trichloro)-tetra-(monopotassium dichloro)-penta-s-triazinetrione, dry
UN2468	30	Trichloroisocyanuric acid, dry
UN2469	29	Zinc bromate
UN2470	37	Phenylacetonitrile, liquid
UN2471	39	Osmium tetroxide
UN2472	36	Pindone, liquid or solid
UN2473	39	Sodium arsanilate
UN2474	42	Thiophosgene
UN2475	42	Vanadium trichloride
UN2477	17	Methyl isothiocyanate
UN2478	40	Isocyanates, n.o.s.
UN2478	40	Isocyanate solutions, n.o.s.
UN2480	40	Methyl isocyanate
UN2481	40	Ethyl isocyanate
UN2482	40	n-Propyl isocyanate
UN2483	40	Isopropyl isocyanate
UN2484	40	tert-Butyl isocyanate
UN2485	40	n-Butyl isocyanate
UN2486	40	Isobutyl isocyanate
UN2487	40	Phenyl isocyanate
UN2488	40	Cyclohexyl isocyanate
UN2489	41	Diphenylmethane-4,4'-diisocyanate
UN2490	38	Dichloroisopropyl ether
UN2491	38	Ethanolamine
UN2491	38	Ethanolamine solutions
UN2491	38	Monoethanolamine
UN2491	38	Monoethanolamine solutions
UN2493	18	Hexamethyleneimine
UN2495	28	Iodine pentafluoride
UN2496	41	Propionic anhydride
UN2497	38	Sodium phenolate, solid
UN2498	19	1,2,3,6-Tetrahydrobenzaldehyde
UN2501	37	Tri-(1-aziridinyl) phosphine oxide, solution
UN2502	40	Valeryl chloride
UN2503	42	Zirconium tetrachloride
UN2504	36	Acetylene tetrabromide
UN2504	36	Tetrabromoethane
UN2505	39	Ammonium fluoride
UN2506	39	Ammonium bisulphate
UN2506	39	Ammonium hydrogen sulphate
UN2507	39	Chloroplatinic acid, solid
UN2508	41	Molybdenum pentachloride
UN2509	39	Potassium hydrogen sulphate
UN2511	38	alpha-Chloropropionic acid
UN2512	37	Aminophenols
UN2513	41	Bromoacetyl bromide
UN2514	17	Bromobenzene
UN2515	39	Bromoform
UN2516	36	Carbon tetrabromide
UN2517	04	Chlorodifluoroethanes
UN2518	38	1,5,9-Cyclododecatriene
UN2520	19P	Cyclooctadienes
UN2521	41P	Diketene, inhibited
UN2522	38P	Dimethylaminoethyl methacrylate
UN2524	19	Ethyl orthoformate
UN2525	41	Ethyl oxalate
UN2526	19	Furfurylamine
UN2527	19P	Isobutyl acrylate
UN2528	19	Isobutyl isobutyrate
UN2529	17	Isobutyric acid
UN2530	40	Isobutyric anhydride
UN2531	38P	Methacrylic acid, inhibited
UN2533	41	Methyl trichloroacetate

UN2534	05	Methylchlorosilane
UN2535	19	Methylmorpholine
UN2536	14	Methyltetrahydrofuran
UN2538	20	Nitronaphthalene
UN2541	15	Terpinolene
UN2542	38	Tributylamine
UN2545	25	Hafnium powder, dry
UN2546	25	Titanium powder, dry
UN2547	30	Sodium superoxide
UN2548	12	Chlorine pentafluoride
UN2550	34	Methyl ethyl ketone peroxide(s)
UN2551	32	tert-Butyl peroxydiethylacetate, with tert-Butyl peroxybenzoate
UN2552	36	Hexafluoroacetone hydrate
UN2553	14	Naphtha
UN2554	16P	Methyl allyl chloride
UN2555	20	Nitrocellulose with water
UN2556	20	Nitrocellulose with alcohol
UN2557	20	Nitrocellulose with plasticizing substance
UN2558	18	Epibromohydrin
UN2560	17	2-Methylpentan-2-ol
UN2561	14	3-Methyl-1-butene
UN2562	35	tert-Butyl peroxyisobutyrate
UN2563	34	Methyl ethyl ketone peroxide(s)
UN2564	38	Trichloroacetic acid, solution
UN2565	38	Dicyclohexylamine
UN2567	39	Sodium pentachlorophenate
UN2570	39	Cadmium compounds, n.o.s.
UN2571	41	Ethylsulphuric acid
UN2572	38	Phenylhydrazine
UN2573	30	Thallium chlorate
UN2574	36	Tricresyl phosphate
UN2576	42	Phosphorus oxybromide, molten
UN2577	41	Phenylacetyl chloride
UN2578	23	Phosphorus trioxide
UN2579	38	Piperazine
UN2580	39	Aluminum bromide, solution
UN2581	39	Aluminum chloride, solution
UN2582	39	Ferric chloride, solution
UN2583	38	Alkyl sulphonic acid, solid *with more than 5% free sulphuric acid*
UN2583	38	Aryl sulphonic acid, solid *with more than 5% free sulphuric acid*
UN2583	38	Toluene sulphonic acid, solid *with more than 5% free sulphuric acid*
NA2584	38	Dodecylbenzenesulphonic acid
UN2584	38	Alkyl sulphonic acid, liquid *with more than 5% free sulphuric acid*
UN2584	38	Aryl sulphonic acid, liquid *with more than 5% free sulphuric acid*
UN2584	38	Toluene sulphonic acid, liquid *with more than 5% free sulphuric acid*
UN2585	38	Alkyl sulphonic acid, solid *with not more than 5% free sulphuric acid*
UN2585	38	Aryl sulphonic acid, solid *with not more than 5% free sulphuric acid*
UN2585	38	Toluene sulphonic acid, solid *with not more than 5% free sulphuric acid*
UN2586	38	Alkyl sulphonic acid, liquid *with not more than 5% free sulphuric acid*

UN2586	38	Aryl sulphonic acid, liquid *with not more than 5% free sulphuric acid*
UN2586	38	Toluene sulphonic acid, liquid *with not more than 5% free sulphuric acid*
UN2587	38	Benzoquinone
UN2588	36	Pesticides, solid, toxic, n.o.s.
UN2589	41	Vinyl chloroacetate
UN2590	49	White asbestos (chrysotile, actinolite, anthophyllite, tremolite)
UN2591	08	Xenon, refrigerated liquid
UN2592	32	Distearyl peroxydicarbonate
UN2593	35	Di-(2-methylbenzoyl) peroxide
UN2594	35	tert-Butyl peroxyneodecanoate
UN2595	35	Dimyristyl peroxydicarbonate
UN2596	32	3-tert-Butyl peroxy-3-phenylphthalide
UN2597	35	Di-(3,5,5-trimethyl-1,2-dioxolanyl-3) peroxide
UN2598	32	Ethyl-3,3-di-(tert-butylperoxy) butyrate
UN2599	06	Chlorotrifluoromethane and trifluoromethane azeotropic mixture
UN2600	05	Carbon monoxide and hydrogen mixture
UN2601	04	Cyclobutane
UN2602	06	Dichlorodifluoromethane and difluoroethane azeotropic mixture
UN2603	17	Cycloheptatriene
UN2604	26	Boron trifluoride diethyl etherate
UN2605	40	Methoxymethylisocyanate
UN2606	40	Methyl orthosilicate
UN2607	19P	Acrolein dimer, stabilized
UN2608	17E	Nitropropanes
UN2609	41	Triallyl borate
UN2610	19	Triallylamine
UN2611	17	Propylene chlorohydrin
UN2612	14	Methyl propyl ether
UN2614	17	Methallyl alcohol
UN2615	14	Ethyl propyl ether
UN2616	40	Triisopropyl borate
UN2617	17	Methyl cyclohexanols
UN2618	17P	Vinyl toluene, inhibited
UN2619	38	Benzyl dimethylamine
UN2620	19	Amyl butyrates
UN2621	15P	Acetyl methyl carbinol
UN2622	19P	Glycidaldehyde
UN2623	20	Firelighters, solid, *with flammable liquid*
UN2624	26	Magnesium silicide
UN2626	30	Chloric acid, aqueous solution
UN2627	30	Nitrites, inorganic, n.o.s.
UN2628	36	Potassium fluoroacetate
UN2629	36	Sodium fluoroacetate
NA2630	36	Sodium selenite
UN2630	36	Selenates
UN2630	36	Selenites
UN2642	41	Fluoroacetic acid
UN2643	41	Methyl bromoacetate
UN2644	36	Methyl iodide
UN2645	38	Phenacyl bromide
UN2646	36	Hexachlorocyclopentadiene
UN2647	38	Malononitrile
UN2648	39	1,2-Dibromobutan-3-one
UN2649	38	1,3-Dichloroacetone
UN2650	38	1,1-Dichloro-1-nitroethane
UN2651	38	4,4'-Diaminodiphenyl methane

UN2653	41	Benzyl iodide
UN2655	36	Potassium fluorosilicate
UN2656	38	Quinoline
UN2657	38	Selenium disulphide
UN2658	37	Selenium, powder
UN2659	36	Sodium chloroacetate
UN2660	38	Nitrotoluidines (mono)
UN2661	39	Hexachloroacetone
UN2662	38	Hydroquinone
UN2664	39	Dibromomethane
UN2666	41	Ethyl cyanoacetate
UN2667	37	Butyl toluenes
UN2668	19	Chloroacetonitrile
UN2669	37	Chlorocresols
UN2670	42	Cyanuric chloride
UN2671	38	Aminopyridines
UN2672	39	Ammonia solutions *with more than 10 per cent but not more than 35 per cent ammonia*
UN2672	39	Ammonium hydroxide *with more than 10 per cent but not more than 35 per cent ammonia*
UN2673	36	2-Amino-4-chlorophenol
UN2674	39	Sodium fluorosilicate
UN2676	05	Stibine
UN2677	39	Rubidium hydroxide, solution
UN2678	39	Rubidium hydroxide
UN2679	39	Lithium hydroxide, solution
UN2680	39	Lithium hydroxide, monohydrate
UN2681	39	Caesium hydroxide, solution
UN2682	42	Caesium hydroxide
NA2683	19	Ammonium hydrosulphide, solution
UN2683	19	Ammonium sulphide, solution
UN2684	19	Diethylaminopropylamine
UN2685	38	N,N-Diethylethylene-diamine
UN2686	18	Diethylaminoethanol
UN2687	38	Dicyclohexylammonium nitrite
UN2688	36	1-Bromo-3-chloropropane
UN2689	38	Glycerol alpha-monochlorohydrin
UN2690	37	N-n-Butyl-imidazole
UN2691	42	Phosphorus pentabromide
UN2692	42	Boron tribromide
NA2693	39	Ammonium bisulphite, solid
NA2693	39	Ammonium bisulphite, solution
NA2693	39	Calcium bisulphite, solution
NA2693	39	Calcium hydrogen sulphite, solution
NA2693	39	Potassium metabisulphite
NA2693	39	Sodium bisulphite, solid
NA2693	39	Sodium bisulphite, solution
NA2693	39	Sodium hydrogen sulphite, solid
NA2693	39	Sodium hydrogen sulphite, solution
NA2693	39	Sodium metabisulphite
UN2693	39	Bisulphites, inorganic, aqueous solutions, n.o.s.
UN2698	41	Tetrahydrophthalic anhydrides
UN2699	39	Trifluoroacetic acid
UN2705	19	1-Pentol
UN2707	15	Dimethyldioxanes
UN2708	15	Butoxyl
UN2709	15	Butyl benzenes
UN2710	15	Dipropylketone
UN2711	17	Dibromobenzene
UN2713	38	Acridine

ID	GUIDE	SHIPPING NAME
UN2714	20	Zinc resinate
UN2715	20	Aluminum resinate
UN2716	38	1,4-Butynediol
UN2717	20	Camphor, *synthetic*
UN2718	25	Tripropyl aluminum
UN2719	30	Barium bromate
UN2720	30	Chromium nitrate
UN2721	30	Copper chlorate
UN2722	30	Lithium nitrate
UN2723	30	Magnesium chlorate
UN2724	30	Manganese nitrate
UN2725	29	Nickel nitrate
UN2726	29	Nickel nitrite
UN2727	30	Thallium nitrate
UN2728	29	Zirconium nitrate
UN2729	37	Hexachlorobenzene
UN2730	37	Nitroanisole, liquid or solid
UN2732	37	Nitrobromobenzene, liquid or solid
UN2733	18	Alkylamines, n.o.s.
UN2733	18	Polyalkylamines, n.o.s.
UN2734	18	Alkylamines, n.o.s.
UN2734	18	Polyalkylamines, n.o.s.
UN2735	38	Alkylamines, n.o.s.
UN2735	38	Polyalkylamines, n.o.s.
UN2738	38	N-Butylaniline
UN2739	41	Butyric anhydride
UN2740	40	n-Propyl chloroformate
UN2741	30	Barium hypochlorite
NA2742	41	sec-Butylchloroformate
NA2742	41	Isobutyl chloroformate
UN2742	40	Chloroformates, n.o.s.
UN2743	41	n-Butylchloroformate
UN2744	40	Cyclobutylchloroformate
UN2745	42	Chloromethyl-chloroformate
UN2746	41	Phenylchloroformate
UN2747	41	tert-Butylcyclo-hexylchloroformate
UN2748	41	2-Ethylhexylchloroformate
UN2749	16	Tetramethylsilane
UN2750	38	1,3-Dichloropropanol-2
UN2751	40	Diethylthiophosphoryl chloride
UN2752	15	1,2-Epoxy-3-ethoxypropane
UN2753	38	N-Ethyl benzyltoluidines
UN2754	38	N-Ethyltoluidines
UN2755	33	3-Chloroperoxybenzoic acid
UN2756	33	Organic peroxides, mixtures
NA2757	36	Carbaryl
NA2757	36	Carbofuran
NA2757	36	Carbofuran mixtures, liquid
NA2757	36	Mexacarbate
UN2757	36	Carbamate pesticides, solid, toxic, n.o.s.
UN2758	16	Carbamate pesticides, liquid, flammable, toxic, n.o.s.
NA2759	36	Bordeaux arsenite, liquid
NA2759	36	Bordeaux arsenite, solid
UN2759	36	Arsenical pesticides, solid, toxic, n.o.s.
UN2760	16	Arsenical pesticides, liquid, flammable, toxic, n.o.s.
NA2761	36	Aldrin
NA2761	36	Aldrin, cast solid
NA2761	36	Aldrin mixture, dry
NA2761	36	DDT
NA2761	36	1,1-Dichloro-2,2-di-(p-chlorophenyl) ethane
NA2761	36	Dichlorodiphenyltri-chloroethane
NA2761	36	Dieldrin
NA2761	36	Endosulfan
NA2761	36	Endosulfan mixture, liquid

NA2761	36	Endrin
NA2761	36	Endrin mixture, liquid
NA2761	36	Lindane
NA2761	36	TDE or 1,1-Dichloro-2,2-bis (p-chlorophenyl) ethane
NA2761	36	Toxaphene
UN2761	36	Organochlorine pesticides, solid, toxic, n.o.s.
NA2762	18	Aldrin mixture, liquid
NA2762	18	Chlordane, liquid
UN2762	18	Organochlorine pesticides, liquid, flammable, toxic, n.o.s.
UN2763	36	Triazine pesticides, solid, toxic, n.o.s.
UN2764	16	Triazine pesticides, liquid, flammable, toxic, n.o.s.
NA2765	37	2,4-D
NA2765	37	2,4-D ester
NA2765	37	2,4-Dichlorophenoxyacetic acid
NA2765	37	2,4-Dichlorophenoxyacetic acid ester
NA2765	37	2,4,5-T
NA2765	37	2,4,5-TP
NA2765	37	2,4,5-Trichlorophenoxy acetic acid
NA2765	37	2,4,5-Trichlorophenoxy acetic acid amine, ester or salt
NA2765	37	2,4,5-Trichlorophenoxy-propionic acid
NA2765	37	2,4,5-Trichlorophenoxy-propionic acid ester
UN2765	37	Phenoxy pesticides, solid, toxic, n.o.s.
UN2766	16	Phenoxy pesticides, liquid, flammable, toxic, n.o.s.
UN2767	36	Phenyl urea pesticides, solid, toxic, n.o.s.
UN2768	16	Phenyl urea pesticides, liquid, flammable, toxic, n.o.s.
UN2769	36	Benzoic derivative pesticides, solid, toxic, n.o.s.
UN2770	16	Benzoic derivative pesticides, liquid, flammable, toxic, n.o.s.
NA2771	37	Thiram
UN2771	36	Dithiocarbamate pesticides, solid, toxic, n.o.s.
UN2772	16	Dithiocarbamate pesticides, liquid, flammable, toxic n.o.s.
UN2773	36	Phthalimide derivative pesticides, solid, toxic, n.o.s.
UN2774	16	Phthalimide derivative pesticides, liquid, flammable, toxic, n.o.s.
UN2775	36	Copper based pesticides, solid, toxic, n.o.s.
UN2776	16	Copper based pesticides, liquid, flammable, toxic, n.o.s.
UN2777	36	Mercury based pesticides, solid, toxic, n.o.s.
UN2778	16	Mercury based pesticides, liquid, flammable, toxic, n.o.s.
UN2779	38	Substituted nitrophenol pesticides, solid, toxic, n.o.s.
UN2780	18	Substituted nitrophenol pesticides, liquid, flammable, toxic, n.o.s.
UN2781	36	Bipyridilium pesticides, solid, toxic, n.o.s.

PIN	GUIDE	SHIPPING NAME
UN2782	16	Bipyridilium pesticides, liquid, flammable, toxic, n.o.s.
NA2783	37	Azinphos methyl, solid
NA2783	37	Chlorpyrifos
NA2783	37	Coumaphos
NA2783	37	Coumaphos mixture, liquid
NA2783	37	Diazinon
NA2783	37	Dichlorvos
NA2783	37	Dichlorvos mixture, dry
NA2783	37	Disulfoton
NA2783	37	Disulfoton mixture, dry
NA2783	37	Disulfoton mixture, liquid
NA2783	37	Ethion
NA2783	37	Ethion mixture, dry
NA2783	37	Hexaethyl tetraphosphate mixture, dry
NA2783	37	Malathion
NA2783	37	Methyl parathion, solid
NA2783	37	Mevinphos
NA2783	37	Mevinphos mixture, dry
NA2783	37	Mevinphos mixture, liquid
NA2783	37	Organic phosphate, liquid
NA2783	37	Organic phosphate, solid
NA2783	37	Organic phosphate compound, liquid
NA2783	37	Organic phosphate compound, solid
NA2783	37	Organic phosphate compound mixture, liquid
NA2783	37	Organic phosphate compound mixture, solid or dry
NA2783	37	Organic phosphate mixture, liquid
NA2783	37	Organic phosphate mixture, solid or dry
NA2783	37	Organic phosphorus compound, liquid
NA2783	37	Organic phosphorus compound, solid
NA2783	37	Organic phosphorus compound mixture, liquid
NA2783	37	Organic phosphorus compound mixture, solid or dry
NA2783	37	Parathion
NA2783	37	Parathion, liquid
NA2783	37	Phencapton
NA2783	37	Tetraethyl pyrophosphate, solid
NA2783	37	Tetraethyl pyrophosphate mixture, liquid
NA2783	37	Tetraethyl pyrophosphate mixture, solid
NA2783	37	Trichlorfon
UN2783	37	Organophosphorus pesticides, solid, toxic, n.o.s.
UN2784	16	Organophosphorus pesticides, liquid, flammable, toxic, n.o.s.
UN2785	19	Thia-4-pentanal
UN2786	38	Organotin pesticides, solid, toxic, n.o.s.
UN2787	16	Organotin pesticides, liquid, flammable, toxic, n.o.s.
UN2788	38	Organotin compounds, liquid, n.o.s.
UN2789	19	Acetic acid, glacial
UN2789	19	Acetic acid solution, *with more than 80 per cent acid, by mass*
UN2790	38	Acetic acid solution
UN2790	38	Acetic acid solution, *with more than 10 per cent but not more than 80 per cent acid, by mass*
UN2791	20	Aircraft thrust device for assisted take-off

UN2792	20	Igniter for aircraft thrust device
UN2793	52	Ferrous metal borings, shavings, turnings or cuttings
UN2794	39	Batteries, wet, filled with acid
UN2795	39	Batteries, wet, filled with alkali
UN2796	39	Battery fluid, acid, or Battery fluid, acid, with electronic equipment or actuating device or Battery fluid, acid, with battery
UN2797	39	Battery fluid, alkali or Battery fluid, alkali, with electronic equipment or actuating device or Battery fluid, alkali, with battery
UN2798	41	Benzene phosphorus dichloride
UN2798	41	Phenyl phosphorus dichloride
UN2799	41	Benzene phosphorus thiodichloride
UN2799	41	Phenyl phosphorus thiodichloride
UN2800	39	Batteries, wet, non-spillable
UN2801	39	Dye intermediates, n.o.s.
UN2801	39	Dyes, n.o.s.
UN2802	39	Copper chloride
UN2803	50	Gallium
UN2805	26	Lithium hydride, fused solid
UN2806	26	Lithium nitride
UN2807	49	Magnetized material
UN2809	50	Mercury
NA2810	38	Arsenious and Mercuric iodide solution
NA2810	38	3,5-Dichloro-2,4,6-trifluoropyridine
NA2810	38	Medicines, poisonous, liquid, n.o.s.
UN2810	38	Poisonous liquid, n.o.s.
NA2811	39	Lead fluoride
NA2811	39	Medicines, poisonous, solid, n.o.s.
NA2811	39	Selenium oxide
UN2811	39	Poisonous solid, n.o.s.
UN2812	39	Sodium aluminate, solid
NA2813	26	Lithium acetylide-ethylenediamine complex
UN2813	26	Substances, which in contact with water emit flammable gases, solid, n.o.s.
UN2813	26	Water reactive solid, n.o.s.
UN2814	43	Infectious substances, affecting humans, n.o.s.
UN2815	38	N-Aminoethylpiperazine
UN2817	39	Ammonium bifluoride, solution
UN2817	39	Ammonium hydrogen fluoride, solution
UN2818	39	Ammonium polysulphide, solution
UN2819	38	Amyl acid phosphate
UN2820	38	Butyric Acid
UN2821	38	Phenol solutions
UN2822	38	2-Chloropyridine
UN2823	38	Crotonic acid
UN2825	38	N,N-Diisopropyl-ethanolamine
UN2826	40	Ethyl chlorothioformate
UN2829	38	Caproic acid
UN2829	38	Hexanoic acid
UN2830	27	Lithium ferrosilicon
UN2831	36	1,1,1-Trichloroethane
UN2834	39	Phosphorous acid, ortho
UN2835	26	Sodium aluminum hydride

UN2837	39	Sodium bisulphate, solution
UN2837	39	Sodium hydrogen sulphate, solution
UN2838	18P	Vinyl butyrate, inhibited
UN2839	38	Aldol
UN2840	19	Butyraldoxime
UN2841	19	Di-n-amylamine
UN2842	17E	Nitroethane
UN2844	26	Calcium manganese silicon
NA2845	25	Ethyl phosphonous dichloride, anhydrous
NA2845	25	Methyl phosphonous dichloride, pyrophoric liquid
UN2845	23	Pyrophoric liquid, organic, n.o.s.
UN2846	23	Pyrophoric solid, organic, n.o.s.
UN2849	38	3-Chloropropanol-1
UN2850	15	Propylene tetramer
UN2851	42	Boron trifluoride dihydrate
UN2852	02	Dipicryl sulphide, wetted
UN2853	36	Magnesium fluorosilicate
UN2854	39	Ammonium fluorosilicate
UN2854	39	Ammonium silicofluoride
UN2855	39	Zinc fluorosilicate
UN2855	39	Zinc silicofluoride
UN2856	36	Fluorosilicates, n.o.s.
UN2857	06	Refrigerating machines, *containing non-flammable, non-poisonous, non-corrosive, liquefied gases*
UN2858	52	Zirconium, dry, *coiled wire*
UN2859	39	Ammonium metavanadate
UN2860	39	Vanadium trioxide, *non-fused form*
UN2861	36	Ammonium polyvanadate
UN2862	36	Vanadium pentoxide, *non-fused form*
UN2863	39	Sodium ammonium vanadate
UN2864	36	Potassium metavanadate
UN2865	39	Hydroxylamine sulphate
UN2869	42	Titanium trichloride mixtures
UN2870	25	Aluminum borohydride
UN2870	25	Aluminum borohydride in devices
UN2871	52	Antimony powder
UN2872	38	Dibromochloropropane
UN2873	38	Dibutylaminoethanol
UN2874	38	Furfuryl alcohol
UN2875	36	Hexachlorophene
UN2876	38	Resorcinol
UN2877	37	Thiourea
UN2878	52	Titanium sponge granules
UN2878	52	Titanium sponge powder
UN2879	42	Selenium oxychloride
UN2880	30	Calcium hypochlorite, hydrated
UN2880	30	Calcium hypochlorite, hydrated, mixtures
UN2881	52E	Metal catalysts, dry
UN2881	52E	Nickel catalyst, dry
UN2883	32	2,2-Di-(tert-butylperoxy) propane
UN2884	32	2,2-Di-(tert-butylperoxy) propane
UN2885	32	1,1-Di-(tert-butylperoxy) cyclohexane
UN2886	35	tert-Butyl peroxy-2-ethylhexanoate, *not more than 30 per cent with 2,2-Di-(tert-butylperoxy) butane*
UN2887	32	tert-Butyl peroxy-2-ethylhexanoate, *not more than 12 per cent with 2,2-Di-(tert-butylperoxy) butane*

UN2888	35	tert-Butyl peroxy-2-ethylhexanoate
UN2889	35	Diisotridecyl peroxydicarbonate
UN2890	32	tert-Butyl peroxybenzoate
UN2891	35	tert-Amyl peroxyneodecanoate
UN2892	35	Dimyristyl peroxydicarbonate
UN2893	33	Dilauroyl peroxide
UN2893	33	Lauroyl peroxide
UN2894	35	Di-(4-tert-butylcyclohexyl) peroxydicarbonate
UN2895	35	Dicetyl peroxydicarbonate
UN2896	34	Cyclohexanone peroxide(s)
UN2897	32	1,1-Di-(tert-butylperoxy) cyclohexane
UN2898	35	tert-Amyl peroxy-2-ethylhexanoate
UN2899	33	Organic peroxides, trial quantities, n.o.s.
UN2900	43	Infectious substances, affecting animals *only*
UN2901	12	Bromine chloride
NA2902	36	Allethrin
UN2902	36	Pesticides, liquid, toxic, n.o.s.
UN2903	17	Pesticides, liquid, toxic, flammable, n.o.s.
UN2904	39	Chlorophenates, liquid
UN2905	39	Chlorophenates, solid
UN2906	15	Triisocyanatoisocyanurate of isophorone-diisocyanate, solution
UN2907	20	Isosorbide dinitrate mixture
UN2910	45	Radioactive material, excepted package: - Instruments or Articles - Limited quantity of material - Articles manufactured from Natural Uranium or Depleted Uranium or Natural Thorium - Empty packaging
UN2912	45	Radioactive material, low specific activity (LSA), n.o.s.
UN2912	45	Tritiated water
UN2913	44	Radioactive material, surface contaminated objects (SCO)
UN2918	44	Radioactive material, fissile, n.o.s.
NA2920	18	1,4-Dichlorobutene-2
UN2920	18	Corrosive liquid, flammable, n.o.s.
UN2921	38	Corrosive solid, flammable, n.o.s.
NA2922	38	Sodium hydrosulphide, solution
UN2922	39	Corrosive liquid, poisonous, n.o.s.
UN2923	39	Corrosive solid, poisonous, n.o.s.
NA2924	18	Dichlorobutene
UN2924	18	Flammable liquid, corrosive, n.o.s
UN2925	38	Flammable solid, corrosive, n.o.s.
UN2925	38	Flammable solid, organic, corrosive, n.o.s.
UN2926	38	Flammable solid, organic, poisonous, n.o.s.
UN2926	38	Flammable solid, poisonous, n.o.s.
NA2927	41	Ethyl phosphonothioic dichloride, anhydrous

PIN	GUIDE	SHIPPING NAME
NA2927	41	Ethyl phosphorodichloridate
UN2927	39	Poisonous liquid, corrosive, n.o.s.
UN2928	39	Poisonous solid, corrosive, n.o.s.
UN2929	17	Poisonous liquid, flammable, n.o.s.
UN2930	20	Poisonous solid, flammable, n.o.s.
UN2931	36	Vanadyl sulphate
UN2933	19	Methyl-2-chloropropionate
UN2934	19	Isopropyl-2-chloro-propionate
UN2935	19	Ethyl-2-chloropropionate
UN2936	38	Thiolactic acid
UN2937	38	alpha-Methylbenzyl alcohol
UN2938	38	Methyl benzoate
UN2940	23	Cyclooctadiene phosphines
UN2940	23	9-Phosphabicyclononanes
UN2941	38	Fluoroanilines
UN2942	38	2-Trifluoromethylaniline
UN2943	38	Tetrahydrofurfurylamine
UN2945	18	N-Methylbutylamine
UN2946	38	2-Amino-5-diethylaminopentane
UN2947	17	Isopropyl chloroacetate
UN2948	38	3-Trifluoromethylaniline
UN2949	23	Sodium hydrosulphide, solid *with not less than 25% water of crystallization*
UN2950	26	Magnesium granules, coated
UN2951	21	Diphenyloxide-4,4'-di-sulphohydrazide
UN2952	22	Azodiisobutyronitrile
UN2953	22	2,2'-Azodi-(2,4-dimethylvaleronitrile)
UN2954	21	1,1'-Azodi-(hexahydrobenzonitrile)
UN2955	22	2,2'-Azodi-(2,4-dimethyl-4-methoxyvaleronitrile)
UN2956	21	5-tert-Butyl-2-4-6-trinitro-m-xylene
UN2956	21	Musk xylene
UN2957	35	tert-Amyl peroxypivalate
UN2958	35	Diperoxy azelaic acid
UN2959	33	2,5-Dimethyl-2,5-di-(benzoylperoxy) hexane
UN2960	35	Di-(2-ethylhexyl) peroxydicarbonate
UN2961	35	2,4,4-Trimethylpentyl-2-peroxy phenoxy acetate
UN2962	35	Disuccinic acid peroxide
UN2962	35	Succinic acid peroxide
UN2963	35	Cumyl peroxyneodecanoate
UN2964	35	Cumyl peroxypivalate
UN2965	26	Boron trifluoride dimethyl etherate
UN2966	38	Thioglycol
UN2967	39	Sulphamic acid
UN2968	25	Maneb, *stabilized against self-heating*
UN2968	25	Maneb preparations, *stabilized against self-heating*
UN2969	37	Castor beans
UN2969	37	Castor flake
UN2969	37	Castor meal
UN2969	37	Castor pomace
UN2970	21	Benzene sulphohydrazide
UN2971	21	Benzene-1,3-disulphohydrazide
UN2972	21	N,N'-Dinitroso-pentamethylene tetramine
UN2973	21	N,N'-Dinitroso-N,N'-dimethyl terephthalamide

PIN	GUIDE	SHIPPING NAME
UN2974	44	Radioactive material, special form, n.o.s.
UN2975	47	Thorium metal, pyrophoric
UN2976	46	Thorium nitrate, solid
UN2977	48	Uranium hexafluoride, *fissile*
UN2978	48	Uranium hexafluoride, *fissile excepted or non-fissile*
UN2979	47	Uranium metal, pyrophoric
UN2980	46	Uranyl nitrate hexahydrate, solution
UN2981	46	Uranyl nitrate, solid
UN2982	44	Radioactive material, n.o.s.
UN2983	16P	Ethylene oxide and propylene oxide mixtures
UN2984	30	Hydrogen peroxide, aqueous solutions
UN2985	40	Chlorosilanes, n.o.s.
UN2986	40	Chlorosilanes, n.o.s.
UN2987	41	Chlorosilanes, n.o.s.
UN2988	26	Chlorosilanes, n.o.s. *which in contact with water emit flammable gases*
UN2989	37	Lead phosphite dibasic
UN2990	49	Life-saving appliances, self-inflating
UN2991	17	Carbamate pesticides, liquid, toxic, flammable, n.o.s.
UN2992	36	Carbamate pesticides, liquid, toxic, n.o.s.
UN2993	17	Arsenical pesticides, liquid, toxic, flammable, n.o.s.
UN2994	36	Arsenical pesticides, liquid, toxic, n.o.s.
UN2995	19	Organochlorine pesticides, liquid, toxic, flammable, n.o.s.
UN2996	36	Organochlorine pesticides, liquid, toxic, n.o.s.
UN2997	17	Triazine pesticides, liquid, toxic, flammable, n.o.s.
UN2998	36	Triazine pesticides, liquid, toxic, n.o.s.
UN2999	17	Phenoxy pesticides, liquid, toxic, flammable, n.o.s.
UN3000	37	Phenoxy pesticides, liquid, toxic, n.o.s.
UN3001	17	Phenyl urea pesticides, liquid, toxic, flammable, n.o.s.
UN3002	36	Phenyl urea pesticides, liquid, toxic, n.o.s.
UN3003	17	Benzoic derivative pesticides, liquid, toxic, flammable, n.o.s.
UN3004	36	Benzoic derivative pesticides, liquid, toxic, n.o.s.
UN3005	17	Dithiocarbamate pesticides, liquid, toxic, flammable, n.o.s.
UN3006	36	Dithiocarbamate pesticides, liquid, toxic n.o.s.
UN3007	17	Phthalimide derivative pesticides, liquid, toxic, flammable, n.o.s.
UN3008	36	Phthalimide derivative pesticides, liquid, toxic, n.o.s.
UN3009	17	Copper based pesticides, liquid, toxic, flammable, n.o.s.
UN3010	36	Copper based pesticides, liquid, toxic, n.o.s.
UN3011	17	Mercury based pesticides, liquid, toxic, flammable, n.o.s.

ID	GUIDE	SHIPPING NAME
UN3012	36	Mercury based pesticides, liquid, toxic, n.o.s.
UN3013	19	Substituted nitrophenol pesticides, liquid, toxic, flammable, n.o.s.
UN3014	38	Substituted nitrophenol pesticides, liquid, toxic, n.o.s.
UN3015	17	Bipyridilium pesticides, liquid, toxic, flammable, n.o.s.
UN3016	36	Bipyridilium pesticides, liquid, toxic, n.o.s.
UN3017	17	Organophosphorus pesticides, liquid, toxic, flammable, n.o.s.
NA3018	37	Azinphos methyl mixture, liquid
NA3018	37	Hexaethyl tetraphosphate mixture, liquid
NA3018	37	Methyl parathion, liquid
NA3018	37	Tetraethyl pyrophosphate, liquid
UN3018	37	Organophosphorus pesticides, liquid, toxic, n.o.s.
UN3019	17	Organotin pesticides, liquid, toxic, flammable, n.o.s.
UN3020	38	Organotin pesticides, liquid, toxic, n.o.s.
UN3021	16	Pesticides, liquid, flammable, toxic, n.o.s.
UN3022	14P	1,2-Butyleneoxide, stabilized
UN3023	17	tert-Octyl mercaptan
UN3024	16	Coumarin derivative pesticides, liquid, flammable, toxic, n.o.s.
UN3025	17	Coumarin derivative pesticides, liquid, toxic, flammable, n.o.s.
UN3026	36	Coumarin derivative pesticides, liquid, toxic, n.o.s.
UN3027	36	Coumarin derivative pesticides, solid, toxic, n.o.s.
UN3028	39	Batteries, dry, containing potassium hydroxide solid, *electric, storage*
UN3030	22	2,2'-Azodi-(2-methylbutyronitrile)
UN3031	21	Self-reactive substances, samples, n.o.s.
UN3032	21	Self-reactive substances, trial quantities, n.o.s.
UN3033	21	3-chloro-4-diethylaminobenzene-diazonium zinc chloride
UN3034	21	4-Dipropylamino-benzenediazonium zinc chloride
UN3035	22	3-(2-Hydroxyethoxy)-4-pyrrolidin-1-ylbenzene-diazonium zinc chloride
UN3036	22	2,5-Diethoxy-4-morpholinobenzene-diazonium zinc chloride
UN3037	22	4-[Benzyl(ethyl)amino]-3-ethoxy-benzene-diazonium zinc chloride
UN3038	22	4-[Benzyl(methyl) amino]-3-ethoxy-benzene-diazonium zinc chloride
UN3039	22	4-Dimethylamino-6- (2-dimethylaminoethoxy) toluene-2-diazonium zinc chloride
UN3040	21	Sodium 2-diazo-1-naphthol-4-sulphonate
UN3041	21	Sodium 2-diazo-1-naphthol-5-sulphonate
UN3042	21	2-Diazo-1-naphthol-4-sulphochloride

UN3043	21	2-Diazo-1-naphthol-5-sulphochloride
UN3044	32	tert-Amylperoxybenzoate
UN3045	34	Peroxyacetic acid
UN3046	35	Methylcyclohexanone peroxide(s)
UN3047	35	tert-Butyl peroxypivalate
UN3048	27	Aluminum phosphide pesticides
UN3049	26	Metal alkyl halides, n.o.s.
UN3049	26	Metal aryl halides, n.o.s.
UN3050	26	Metal alkyl hydrides, n.o.s.
UN3050	26	Metal aryl hydrides, n.o.s.
UN3051	25	Aluminum alkyls
UN3052	25	Aluminum alkyl halides
UN3053	25	Magnesium alkyls
UN3054	17	Cyclohexyl mercaptan
UN3055	38	2-(2-Aminoethoxy) ethanol
UN3056	19	n-Heptaldehyde
UN3057	07	Trifluoroacetyl chloride
UN3058	33	Di-(2-phenoxyethyl)-peroxydicarbonate
UN3059	32	Di-(2-phenoxyethyl)-peroxydicarbonate
UN3060	32	2,5-Dimethyl-2,5-di-(isononanoylperoxy)-hexane
UN3060	32	2,5-Dimethyl-2,5-di-(3,5,5-trimethyl hexanoylperoxy)-hexane
UN3061	32	Acetyl acetone peroxide
UN3061	32	3,5-Dimethyl-3,5-dihydroxydioxolane-1,2
UN3062	32	tert-Butylperoxy stearyl carbonate
UN3063	35	Diperoxy dodecane diacid
UN3064	02	Nitroglycerin, solution in alcohol
UN3065	14	Alcoholic beverages
UN3066	38	Paint
UN3066	38	Paint related material
UN3067	34	tert-Amyl hydroperoxide
UN3068	34	Methyl ethyl ketone peroxide(s)
UN3069	32	1,1-Di-(tert-butylperoxy) cyclohexane
UN3070	07	Dichlorodifluoromethane and ethylene oxide mixtures
UN3071	16	Mercaptans, liquid, n.o.s.
UN3071	16	Mercaptan mixtures, liquid, n.o.s.
UN3072	49	Life-saving appliances, not self-inflating
UN3073	18P	Vinyl pyridines, inhibited
UN3076	26	Aluminum alkyl hydrides
NA3077	49	Hazardous waste, solid, n.o.s.
NA3077	49	Other regulated substances, solid, n.o.s.
UN3077	49	Environmentally hazardous substances, solid, n.o.s.
UN3078	26	Cerium, *turnings or gritty powder*
UN3079	16P	Methacrylonitrile, inhibited
UN3080	40	Isocyanates, n.o.s.
UN3080	40	Isocyanate solutions, n.o.s.
NA3082	49	Hazardous waste, liquid, n.o.s.
NA3082	49	Other regulated substances, liquid, n.o.s.
UN3082	49	Environmentally hazardous substances, liquid, n.o.s.
UN3083	12	Perchloryl fluoride
UN3084	30	Corrosive solid, oxidizing, n.o.s.
UN3085	30	Oxidizing solid, corrosive, n.o.s.
UN3085	30	Oxidizing substances, solid, corrosive, n.o.s.

UN	GUIDE	SHIPPING NAME
UN3086	30	Poisonous solid, oxidizing, n.o.s.
UN3087	30	Oxidizing solid, poisonous, n.o.s.
UN3087	30	Oxidizing substances, solid, poisonous, n.o.s.
UN3088	23	Self-heating solid, organic, n.o.s.
UN3088	23	Self-heating substances, solid, n.o.s.
UN3089	52	Metal powders, flammable, n.o.s.
UN3090	26	Lithium batteries
UN3091	26	Lithium batteries contained in equipment
UN3092	16	1-Methoxy-2-propanol
UN3093	30	Corrosive liquid, oxidizing, n.o.s.
UN3094	26	Corrosive liquid, water-reactive, n.o.s.
UN3094	26	Corrosive liquid, which in contact with water emit flammable gases, n.o.s.
UN3095	23	Corrosive solid, self-heating, n.o.s.
UN3096	26	Corrosive solid, water-reactive, n.o.s.
UN3096	26	Corrosive solid, which in contact with water emit flammable gases, n.o.s.
UN3097	29	Flammable solid, oxidizing, n.o.s.
UN3098	30	Oxidizing liquid, corrosive, n.o.s.
UN3098	30	Oxidizing substances, liquid, corrosive, n.o.s.
UN3099	30	Oxidizing liquid, poisonous, n.o.s.
UN3099	30	Oxidizing substances, liquid, poisonous, n.o.s.
UN3100	30	Oxidizing solid, self-heating, n.o.s.
UN3100	30	Oxidizing substances, solid, self-heating, n.o.s.
UN3101	33	Organic peroxide type B, liquid
UN3102	33	Organic peroxide type B, solid
UN3103	32	Organic peroxide type C, liquid
UN3104	32	Organic peroxide type C, solid
UN3105	32	Organic peroxide type D, liquid
UN3106	32	Organic peroxide type D, solid
UN3107	32	Organic peroxide type E, liquid
UN3108	32	Organic peroxide type E, solid
UN3109	32	Organic peroxide type F, liquid
UN3110	32	Organic peroxide type F, solid
UN3111	35	Organic peroxide type B, liquid, temperature controlled
UN3112	35	Organic peroxide type B, solid, temperature controlled
UN3113	35	Organic peroxide type C, liquid, temperature controlled
UN3114	35	Organic peroxide type C, solid, temperature controlled
UN3115	35	Organic peroxide type D, liquid, temperature controlled
UN3116	35	Organic peroxide type D, solid, temperature controlled
UN3117	35	Organic peroxide type E, liquid, temperature controlled

UN3118	35	Organic peroxide type E, solid, temperature controlled
UN3119	35	Organic peroxide type F, liquid, temperature controlled
UN3120	35	Organic peroxide type F, solid, temperature controlled
UN3121	28	Oxidizing solid, water-reactive, n.o.s.
UN3121	28	Oxidizing substances, solid, which in contact with water emit flammable gases, n.o.s.
UN3122	30	Poisonous liquid, oxidizing, n.o.s.
UN3123	26	Poisonous liquid, water-reactive, n.o.s.
UN3123	26	Poisonous liquid, which in contact with water emit flammable gases, n.o.s.
UN3124	23	Poisonous solid, self-heating, n.o.s.
UN3125	26	Poisonous solid, water-reactive, n.o.s.
UN3125	26	Poisonous solid, which in contact with water emit flammable gases, n.o.s.
UN3126	23	Self-heating solid, organic, corrosive, n.o.s.
UN3126	23	Self-heating substances, solid, corrosive, n.o.s.
UN3127	23	Self-heating solid, oxidizing, n.o.s.
UN3127	23	Self-heating substances, solid, oxidizing, n.o.s.
UN3128	23	Self-heating solid, organic, poisonous, n.o.s.
UN3128	23	Self-heating substances, solid, poisonous, n.o.s.
UN3129	26	Substances, which in contact with water emit flammable gases, liquid, corrosive, n.o.s.
UN3129	26	Water-reactive liquid, corrosive, n.o.s.
UN3130	26	Substances, which in contact with water emit flammable gases, liquid, poisonous, n.o.s.
UN3130	26	Water-reactive liquid, poisonous, n.o.s.
UN3131	26	Substances, which in contact with water emit flammable gases, solid, corrosive, n.o.s.
UN3131	26	Water-reactive solid, corrosive, n.o.s.
UN3132	26	Substances, which in contact with water emit flammable gases, solid, flammable, n.o.s.
UN3132	26	Water-reactive solid, flammable, n.o.s.
UN3133	26	Substances, which in contact with water emit flammable gases, solid, oxidizing, n.o.s.
UN3133	26	Water reactive solid, oxidizing, n.o.s.
UN3134	26	Substances, which in contact with water emit flammable gases, solid, poisonous, n.o.s.
UN3134	26	Water reactive solid, poisonous, n.o.s.
UN3135	26	Substances, which in contact with water emit flammable gases, solid, self-heating, n.o.s.
UN3135	26	Water reactive solid, self-heating, n.o.s.
UN3136	06	Trifluoromethane, refrigerated liquid

UN3137	30	Oxidizing solid, flammable, n.o.s.
UN3137	30	Oxidizing substances, solid, flammable, n.o.s.
UN3138	04	Ethylene, acetylene and propylene in mixtures, refrigerated liquid, *containing at least 71.5% ethylene with not more than 22.5% acetylene and not more than 6% propylene.*
UN3139	30	Oxidizing liquid, n.o.s.
UN3139	30	Oxidizing substances, liquid, n.o.s.
UN3140	36	Alkaloids, liquid, n.o.s., poisonous
UN3140	36	Alkaloid salts, liquid, n.o.s., poisonous
UN3141	42	Antimony compounds, inorganic, liquid, n.o.s.
UN3142	36	Disinfectants, liquid, n.o.s., poisonous
UN3143	36	Dye intermediates, solid, n.o.s., *poisonous*
UN3143	36	Dyes, solid, n.o.s., *poisonous*
UN3144	36	Nicotine compounds, liquid, n.o.s.
UN3144	36	Nicotine preparations, liquid, n.o.s.
UN3145	38	Alkyl phenols, liquid, n.o.s.
UN3146	38	Organotin compounds, solid, n.o.s.
UN3147	39	Dye intermediates, solid, n.o.s., *corrosive*
UN3147	39	Dyes, solid, n.o.s., *corrosive*
UN3148	26	Substances, which in contact with water emit flammable gases, liquid, n.o.s
UN3148	26	Water-reactive liquid, n.o.s.
UN3149	30	Hydrogen peroxide and peroxyacetic acid mixtures
UN3150	04	Devices, small, hydrocarbon gas powered, *with relief device*
UN3150	04	Hydrocarbon gas refills for small devices, *with relief device*
UN3151	51	Polyhalogenated biphenyls, liquid
UN3151	51	Polyhalogenated terphenyls, liquid
UN3152	51	Polyhalogenated biphenyls, solid
UN3152	51	Polyhalogenated terphenyls, solid
UN3153	04	Perfluoromethylvinyl ether
UN3154	04	Perfluoroethylvinyl ether
UN3155	39	Pentachlorophenol
UN3156	10	Compressed gas, oxidizing, n.o.s.
UN3157	10	Liquefied gases, oxidizing, n.o.s.
UN3158	06	Gas, refrigerated liquid, n.o.s.
UN3159	06	1,1,1,2-Tetrafluoroethane
UN3159	06	Tetrafluoroethane
UN3160	05	Liquefied gas, toxic, flammable, n.o.s.
UN3161	04	Liquefied gas, flammable, n.o.s.
UN3162	07	Liquefied gas, toxic, n.o.s.
UN3163	06	Liquefied gas, n.o.s.
UN3164	06	Articles, pressurized pneumatic or hydraulic *(containing non-flammable gas)*
UN3165	18	Aircraft hydraulic power unit fuel tank

UN3166	14	Engines, internal combustion, *including when fitted in machinery or vehicles*
UN3167	04	Gas samples, non-pressurized, flammable, n.o.s., *not deeply refrigerated*
UN3168	05	Gas samples, non-pressurized, toxic, flammable, n.o.s., *not deeply refrigerated*
UN3169	07	Gas samples, non-pressurized, toxic, n.o.s., *not deeply refrigerated*
UN3170	26	Aluminum dross
UN3171	39	Wheelchair, electric with batteries
UN3172	38	Toxins, extracted from living sources, n.o.s.
UN3174	23	Titanium disulphide
UN3175	20	Solids containing flammable liquid, n.o.s.
UN3176	20	Flammable solid, organic, molten, n.o.s.
UN3178	20	Flammable solid, inorganic, n.o.s.
UN3179	38	Flammable solid, inorganic, poisonous, n.o.s.
UN3180	38	Flammable solid, inorganic, corrosive, n.o.s.
UN3181	20	Metal salts of organic compounds, flammable, n.o.s.
UN3182	52	Metal hydrides, flammable, n.o.s.
UN3183	23	Self-heating liquid, organic, n.o.s.
UN3184	23	Self-heating liquid, organic, poisonous, n.o.s.
UN3185	23	Self-heating liquid, organic, corrosive, n.o.s.
UN3186	23	Self-heating liquid, inorganic, n.o.s
UN3187	23	Self-heating liquid, inorganic, poisonous, n.o.s.
UN3188	23	Self-heating liquid, inorganic, corrosive, n.o.s.
UN3189	23	Self-heating metal powders, n.o.s.
UN3190	23	Self-heating solid, inorganic, n.o.s.
UN3191	23	Self-heating solid, inorganic, poisonous, n.o.s.
UN3192	23	Self-heating solid, inorganic, corrosive, n.o.s.
UN3194	23	Pyrophoric liquid, inorganic, n.o.s.
UN3200	23	Pyrophoric solid, inorganic, n.o.s.
UN3203	23	Pyrophoric organometallic compounds, n.o.s.
UN3205	40	Alkaline earth metal alcoholates, n.o.s.
UN3206	40	Alkali metal alcoholates, n.o.s.
UN3207	26	Organometallic compounds, water-reactive, flammable, n.o.s.
UN3207	26	Organometallic dispersions, water-reactive, flammable, n.o.s.
UN3207	26	Organometallic solutions, water-reactive, flammable, n.o.s.
UN3208	26	Metallic substances, water-reactive, n.o.s.
UN3209	26	Metallic substances, water-reactive, self-heating, n.o.s.
UN3210	30	Chlorates, inorganic, aqueous solutions, n.o.s.

ID No.	Guide	Shipping Name
UN3211	30	Perchlorates, inorganic, aqueous solutions, n.o.s.
UN3212	30	Hypochlorites, inorganic, n.o.s.
UN3213	30	Bromates, inorganic, aqueous solutions, n.o.s.
UN3214	30	Permanganates, inorganic, aqueous solutions, n.o.s.
UN3215	29	Persulphates, inorganic, n.o.s.
UN3216	29	Persulphates, inorganic, aqueous solutions, n.o.s.
UN3217	29	Percarbonates, inorganic, n.o.s.
UN3218	30	Nitrates, inorganic, aqueous solutions, n.o.s.
UN3219	30	Nitrites, inorganic, aqueous solutions, n.o.s.
UN3220	06	Pentafluoroethane
UN3221	21	Self-reactive liquid, type B
UN3222	21	Self-reactive solid, type B
UN3223	21	Self-reactive liquid, type C
UN3224	21	Self-reactive solid, type C
UN3225	21	Self-reactive liquid, type D
UN3226	21	Self-reactive solid, type D
UN3227	21	Self-reactive liquid, type E
UN3228	21	Self-reactive solid, type E
UN3229	21	Self-reactive liquid, type F
UN3230	21	Self-reactive solid, type F
UN3231	22	Self-reactive liquid, type B, temperature controlled
UN3232	22	Self-reactive solid, type B, temperature controlled
UN3233	22	Self-reactive liquid, type C, temperature controlled
UN3234	22	Self-reactive solid, type C, temperature controlled
UN3235	22	Self-reactive liquid, type D, temperature controlled
UN3236	22	Self-reactive solid, type D, temperature controlled
UN3237	22	Self-reactive liquid, type E, temperature controlled
UN3238	22	Self-reactive solid, type E, temperature controlled
UN3239	22	Self-reactive liquid, type F, temperature controlled
UN3240	22	Self-reactive solid, type F, temperature controlled
UN3241	38	2-Bromo-2-nitropropane-1,3-diol
UN3242	21	Azodicarbonamide
UN3243	36	Solids containing poisonous liquid, n.o.s.
UN3244	39	Solids containing corrosive liquid, n.o.s.
UN3245	49	Genetically modified micro-organisms
UN3246	41	Methanesulphonyl chloride
UN3247	30	Sodium peroxoborate, anhydrous
UN3248	16	Medicines, liquid, flammable, poisonous, n.o.s.
UN3249	36	Medicines, solid, poisonous, n.o.s.
UN3250	38	Chloroacetic acid, molten
NA9001	18	Aircraft hydraulic power unit fuel tank
NA9011	20	Camphene
NA9018	36	Dichlorodifluoroethylene
NA9026	38	Dinitrocyclohexylphenol
NA9035	07	Gas identification sets containing poisonous gases
NA9037	36	Hexachloroethane

NA9056	41E	Potassium azide
NA9069	49	Tetramethyl methylenediamine
NA9073	02	Trinitroaniline, wetted
NA9077	38	Adipic acid
NA9078	49	Aluminum sulphate, solid
NA9079	49	Ammonium acetate
NA9080	49	Ammonium benzoate
NA9081	49	Ammonium bicarbonate
NA9083	39	Ammonium carbamate
NA9084	39	Ammonium carbonate
NA9085	49	Ammonium chloride
NA9086	31	Ammonium chromate
NA9087	49	Ammonium citrate, dibasic
NA9088	39	Ammonium fluoborate
NA9089	49	Ammonium sulphamate
NA9090	49	Ammonium sulphite
NA9091	49	Ammonium tartrate
NA9092	49	Ammonium thiocyanate
NA9093	49	Ammonium thiosulphate
NA9094	38	Benzoic acid
NA9095	49	n-Butyl phthalate
NA9096	49	Calcium chromate
NA9097	49	Calcium dodecylbenzene-sulphonate
NA9100	49	Chromic sulphate
NA9101	49	Chromic acetate
NA9102	49	Chromous chloride
NA9103	49	Cobaltous bromide
NA9104	49	Cobaltous formate
NA9105	49	Cobaltous sulphamate
NA9106	49	Cupric acetate
NA9109	49	Cupric sulphate
NA9110	49	Cupric sulphate, *ammoniated*
NA9111	49	Cupric tartrate
NA9117	49	EDTA
NA9117	49	Ethylenediaminetetra-acetic acid
NA9118	49	Ferric ammonium citrate
NA9119	49	Ferric ammonium oxalate
NA9120	49	Ferric fluoride
NA9121	49	Ferric sulphate
NA9122	49	Ferrous ammonium sulphate
NA9125	49	Ferrous sulphate
NA9126	49	Fumaric acid
NA9127	49	Isopropanolamine dodecylbenzenesulphonate
NA9134	49	Lithium chromate
NA9137	49	Naphthenic acid
NA9138	49	Nickel ammonium sulphate
NA9139	36	Nickel chloride
NA9140	39	Nickel hydroxide
NA9141	39	Nickel sulphate
NA9142	49	Potassium chromate
NA9145	49	Sodium chromate
NA9146	49	Sodium dodecylbenzene-sulphonate (branched chain)
NA9147	49	Sodium phosphate, dibasic
NA9148	49	Sodium phosphate, tribasic
NA9149	49	Strontium chromate
NA9151	49	Triethanolamine dodecylbenzenesulphonate
NA9153	49	Zinc acetate
NA9154	49	Zinc ammonium chloride
NA9155	49	Zinc borate
NA9156	49	Zinc bromide
NA9157	49	Zinc carbonate
NA9158	36	Zinc fluoride
NA9159	49	Zinc formate
NA9160	49	Zinc phenolsulphonate
NA9161	49	Zinc sulphate
NA9162	49	Zirconium potassium fluoride

NA9163	39	Zirconium sulphate
NA9180	44	Uranyl acetate
NA9183	33	Organic peroxide, liquid or solution, stable, n.o.s.
NA9185	44	Plutonium nitrate, solution
NA9187	33	Organic peroxide, solid, stable, n.o.s.
NA9188	49	Hazardous substance, liquid, n.o.s.
NA9188	49	Hazardous substance, solid, n.o.s.
NA9189	49	Hazardous waste, liquid, n.o.s.
NA9189	49	Hazardous waste, solid, n.o.s.
NA9190	31	Ammonium permanganate
NA9191	31	Chlorine dioxide hydrate, frozen
NA9193	30	Oxidizer, liquid, corrosive n.o.s.
NA9194	30	Oxidizer, solid, corrosive, n.o.s.
NA9195	25	Metal alkyl, solution, n.o.s.
NA9199	30	Oxidizer, liquid, poisonous, n.o.s.
NA9200	30	Oxidizer, solid, poisonous, n.o.s.
NA9201	49	Antimony trioxide
NA9202	05	Carbon monoxide, refrigerated liquid
NA9206	41	Methyl phosphonic dichloride
NA9264	41	Chloropivalo[illegible] chloride
NA9269	40	Trimethoxysilane
NA9301	38	Waste Type 1
NA9302	38	Waste Type 2
NA9303	16	Waste Type 3
NA9304	38	Waste Type 4
NA9305	16	Waste Type 5
NA9306	39	Waste Type 6
NA9307	39	Waste Type 7
NA9308	38	Waste Type 8
NA9309	38	Waste Type 9
NA9310	38	Waste Type 10
NA9311	38	Waste Type 11
NA9312	38	Waste Type 12
NA9313	38	Waste Type 13
NA9314	38	Waste Type 14
NA9315	38	Waste Type 15
NA9316	39	Waste Type 16
NA9317	39	Waste Type 17
NA9318	39	Waste Type 18
NA9319	39	Waste Type 19
NA9320	39	Waste Type 20
NA9321	39	Waste Type 21
NA9322	39	Waste Type 22
NA9323	39	Waste Type 23
NA9324	37	Waste Type 24
NA9325	14	Waste Type 25
NA9326	37	Waste Type 26
NA9327	16	Waste Type 27
NA9328	16	Waste Type 28
NA9329	38	Waste Type 29
NA9330	38	Waste Type 30
NA9331	18	Waste Type 31
NA9332	18	Waste Type 32
NA9333	18	Waste Type 33
NA9334	18	Waste Type 34
NA9335	38	Waste Type 35
NA9336	38	Waste Type 36
NA9337	38	Waste Type 37
NA9338	38	Waste Type 38
NA9339	38	Waste Type 39
NA9340	38	Waste Type 40
NA9341	19	Waste Type 41
NA9342	18	Waste Type 42
NA9343	40	Waste Type 43
NA9344	19	Waste Type 44
NA9345	19	Waste Type 45
NA9346	38	Waste Type 46

NA9347	19	Waste Type 47
NA9348	38	Waste Type 48
NA9349	38	Waste Type 49
NA9350	38	Waste Type 50
NA9351	38	Waste Type 51
NA9352	38	Waste Type 52
NA9353	38	Waste Type 53
NA9354	38	Waste Type 54
NA9355	38	Waste Type 55
NA9356	38	Waste Type 56
NA9357	38	Waste Type 57
NA9358	38	Waste Type 58
NA9359	36	Waste Type 59
NA9360	19	Waste Type 60
NA9361	36	Waste Type 61
NA9362	36	Waste Type 62
NA9363	36	Waste Type 63
NA9364	36	Waste Type 64
NA9365	36	Waste Type 65
NA9366	36	Waste Type 66
NA9367	37	Waste Type 67
NA9368	39	Waste Type 68
NA9369	36	Waste Type 69
NA9370	36	Waste Type 70
NA9371	20	Waste Type 71
NA9372	36	Waste Type 72
NA9373	36	Waste Type 73
NA9374	14	Waste Type 74
NA9375	38	Waste Type 75
NA9376	38	Waste Type 76
NA9377	16	Waste Type 77
NA9378	38	Waste Type 78
NA9379	38	Waste Type 79
NA9380	36	Waste Type 80
NA9381	39	Waste Type 81
NA9382	39	Waste Type 82
NA9383	39	Waste Type 83
NA9384	36	Waste Type 84
NA9385	39	Waste Type 85
NA9386	39	Waste Type 86
NA9387	39	Waste Type 87
NA9388	36	Waste Type 88
NA9389	39	Waste Type 89
NA9390	39	Waste Type 90
NA9391	38	Waste Type 91
NA9392	39	Waste Type 92
NA9393	38	Waste Type 93
NA9394	36	Waste Type 94
NA9395	38	Waste Type 95
NA9396	36	Waste Type 96
NA9397	38	Waste Type 97
NA9399	42	Waste Type 99
NA9400	42	Waste Type 100

Potential Hazards

Fire or Explosion

- May explode from heat, shock, friction or contamination.
- May react vigorously or explosively on contact with air, water or foam.
- May ignite spontaneously when exposed to air.
- May be ignited by heat, sparks or flames.
- Vapours may travel to source of ignition and flash back.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- Inhalation, ingestion or contact with substance may cause severe injury, infection, disease or death.
- High concentration of gas may cause asphyxiation without warning.
- Contact of vapour or substance with eyes may cause blindness within minutes.
- Fire or contact with water may produce irritating, poisonous and/or corrosive gases.
- May be radioactive.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep unauthorized personnel away. • Keep upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing will provide limited protection.

EVACUATION

Fire

- When any large container (including rail and road tankers) is involved in a spill or fire, consider initial evacuation for 500 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER OR FOAM.**

Fire involving Tanks or Car/Trailer Loads

- When a large quantity of this material is involved in a major fire, and water has to be used, evacuation should be set up for at least 250 m.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not get water inside containing vessels.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.
- Call CANUTEC for assistance on handling and disposal.

First Aid

- Remove victim to fresh air.
- Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Shower and wash with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

* TO BE USED ONLY IF THE SUBSTANCES ARE SUSPECTED OF BEING DANGEROUS GOODS AND CANNOT BE IDENTIFIED BY SHIPPING NAME, PIN, LABEL OR PLACARD.

Potential Hazards

Fire or Explosion

- When subjected to heat, shock or friction:
  Explosives of division 1.1 or 1.5 will burn and may detonate EN MASSE at any time;
  Explosives of division 1.2 may burn and may detonate with PROJECTION of fragments;
  Explosives of division 1.3 may burn VIOLENTLY; and
  Explosives of division 1.6 include articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation. The risk is limited to the explosion of a single article.

Unless they are specifically classified as explosives, any other products covered by this guide should be considered to behave similarly to a Class 1.1 explosive unless advised differently by a specialist.

Health

- Some of these substances are poisonous and corrosive.
- Fire may produce irritating, corrosive and/or poisonous gases.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**

EVACUATION

- Hazard area: initial minimum evacuation distances in all directions:

Quantity	Class 1.1, 1.2, 1.5 or 1.6†	Class 1.3
250 kg	70 m	70 m
500 kg	100 m	70 m
1000 kg	150 m	70 m
5000 kg	400 m	150 m
20000 kg	700 m	200 m
50000 kg	900 m	300 m
100000 kg	1100 m	400 m

†**Note:** The evacuation distance for class 1.6N explosives is determined by a single article in the shipment which possesses the greatest net explosive quantity.

- Use terrain and building for shielding.
- Keep away from windows.

*** Compatibility Groups**

A,B Substances which are expected to explode or detonate en masse very soon after fire reaches them.

C,J Substances which are readily ignited and burn violently without necessarily exploding.

D,E,F Substances which may explode en masse accompanied by a blast and fragment hazard, but may be exposed to fire for some time before exploding.

(Cont'd on opposite page)

Emergency Response

Fire

CARGO Fires • DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!

- Stop all traffic and clear the area for at least 1600 m in all directions and let burn. • **Do not** move cargo or vehicle if cargo has been exposed to heat.

TIRE or VEHICLE Fires • Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt.

- If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.
- Separate tractor from trailer if without risk.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 m OF ELECTRIC DETONATORS.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**
- KEEP "WETTED" PRODUCT WET BY SLOWLY ADDING FLOODING QUANTITIES OF WATER.

First Aid

- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Remove immediately contaminated clothing and shoes.

*** Compatibility Groups** (Cont'd)

G,H	Substances which burn fiercely with no mass explosion hazard and give off dense smoke with, in some instances, toxic effects.
K	Substances containing toxic materials.
L	Substances which present a special risk and could be activated either by air (pyrophoric) or water.
N	Articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.
S	Packaged substances which, if accidentally initiated, produce effects that usually are confined to the immediate vicinity.

Potential Hazards

Fire or Explosion

- When subjected to heat, shock or friction, explosives of division 1.4, including 1.4S (in the same shipment), may burn vigorously with localized detonations and projection of fragments; risks are limited to the immediate vicinity.
- The effects of accidentally initiating packaged explosives of division 1.4S should be confined to the immediate vicinity of the package.

Health

- Fire may produce irritating, corrosive and/or poisonous gases.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**

EVACUATION

- If fire or heat threatens cargo area of explosives of division 1.4, consider **initial** evacuation for 100 m in all directions.

*** Compatibility Groups**

A,B	Substances which are expected to explode or detonate en masse very soon after fire reaches them.
C,J	Substances which are readily ignited and burn violently without necessarily exploding.
D,E,F	Substances which may explode en masse accompanied by a blast and fragment hazard, but may be exposed to fire for some time before exploding.
G,H	Substances which burn fiercely with no mass explosion hazard and give off dense smoke with, in some instances, toxic effects.
K	Substances containing toxic materials.
L	Substances which present a special risk and could be activated either by air (pyrophoric) or water.
N	Articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.
S	Packaged substances which, if accidentally initiated, produce effects that usually are confined to the immediate vicinity.

Emergency Response

Fire

Cargo Fires

- For explosives of division 1.4, fight fire from maximum distance using unmanned hose holders or monitor nozzles.
- For explosives of division 1.4S, fight fire with normal precautions from reasonable distance to protect personnel.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.

Vehicle and Equipment Fires

- Use dry chemical, sand or flooding quantities of water. If possible and without risk, remove tractor from cargo trailer.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Remove immediately contaminated clothing and shoes.

Potential Hazards

Fire or Explosion

- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Will form explosive mixtures with air.
- Vapours from liquefied gas are initially heavier than air.
- Vapours may travel to source of ignition and flash back.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.
- Fire may produce irritating, corrosive and/or poisonous gases.

Health

- High concentration of gas may cause asphyxiation without warning.
- Some are irritating or poisonous in high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions.
- Keep unauthorized personnel away.
- Keep upwind.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these gases.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 800 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire • Use dry chemical, CO_2 or water spray.

Large Fire • Use water spray or fog.

- Do not use straight streams.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Extinguish secondary fire.
- Cool containing vessels with flooding quantities of water until well after fire is out. • When impossible, withdraw immediately from hazard area and let burn.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Prevent spreading of vapours through sewers and ventilation systems.
- Ventilate the area.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at source of leak or venting safety devices as icing may occur.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • Remove immediately contaminated clothing and shoes. • Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water. • Keep victim warm and quiet. • Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- Flammable/combustible gases.
- May form explosive mixtures with air.
- May be ignited by heat, sparks or flames.
- Vapours from liquefied gas are **initially** heavier than air.
- Vapours may travel to source of ignition and flash back.
- Some may react violently with water.
- Runoff may create fire or explosion hazard.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- **Poisonous**, may be fatal if inhaled, swallowed or absorbed through skin.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep unauthorized personnel away. • Keep upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these gases.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 800 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire • Use dry chemical, CO_2, water spray or alcohol foam.

Large Fire • Use water spray, fog or alcohol foam. • Do not use straight streams. • Extinguish secondary fire.

- If without risk, move undamaged containing vessels or packages from fire area.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

• Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult. • Clothing frozen to the skin should be thawed before being removed. • Remove immediately contaminated clothing and shoes. • In case of contact with liquefied gas, thaw frosted parts with lukewarm water. • Keep victim warm and quiet. • Obtain immediate medical care. • Effects of contact or inhalation may be delayed. • Keep victim under observation. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

GUIDE 06

GASES - SLIGHTLY TOXIC, CORROSIVE and COMBUSTIBLE
Compressed, Liquefied or Deeply Refrigerated (Cryogenic)

Potential Hazards

Fire or Explosion

- Some may burn but do not ignite readily.
- Vapours from liquefied gas are **initially** heavier than air.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- High concentration of gas may cause asphyxiation without warning.
- Some are irritating.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

Public Safety

- Spill or leak area should be isolated immediately for at least 25-50 m in all directions.
- Keep unauthorized personnel away.
- Keep upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA. • Structural firefighter's protective clothing will provide limited protection.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 500 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

GASES - SLIGHTLY TOXIC, CORROSIVE OR COMBUSTIBLE
Compressed, Liquefied or Deeply Refrigerated Cryogenic

Emergency Response

Fire

- Use extinguishing agent suitable for type of surrounding fire.
- If without risk, move undamaged containing vessels or packages from fire area.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Clothing frozen to the skin should be thawed before being removed. • In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet. • Obtain immediate medical care.
- Ensure that medical personnel are aware of identity of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Some may burn but do not ignite readily.
- Vapours from liquefied gas are **initially** heavier than air.
- Some may react violently with water.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- **Poisonous**, may be fatal if inhaled or absorbed through skin.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep unauthorized personnel away. • Keep upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these gases.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 800 m.

Fire

- When any large container (including rail and road tankers) is involved in a spill or fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

Small Fire • Use dry chemical, CO_2.

Large Fire • Use water spray, fog or vapour suppressing foams. • Do not get water inside containing vessels. • If without risk, move undamaged containing vessels or packages from fire area. • Damaged cylinders should be handled only by specialists.

Fire involving Tanks • Use extinguishing agent suitable for type of surrounding fire. • Cool containing vessels with flooding quantities of water until well after fire is out. • Do not direct water at source of leak or venting safety devices as icing may occur. • Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.

- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST**.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- Remove immediately contaminated clothing and shoes. • In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care. • Effects of contact or inhalation may be delayed. • Keep victim under observation. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

GASES - NON-REACTIVE ASPHYXIANTS
Compressed, Liquefied or Deeply Refrigerated (Cryogenic)

Potential Hazards

Fire or Explosion

- Non-flammable gases.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- High concentration of gas may cause asphyxiation without warning.
- Vapours from liquefied gas are **initially** heavier than air.
- Contact with liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating gases.

Public Safety

- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep unauthorized personnel away. • Keep upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA. • Structural firefighter's protective clothing will provide limited protection.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 500 m in all directions.

Emergency Response

Fire

- Use extinguishing agent suitable for type of surrounding fire.
- If without risk, move undamaged containing vessels or packages from fire area.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- Do not touch or walk through spilled material.
- Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care. • Ensure that medical personnel are aware of identity of product(s) involved, and take precautions to protect themselves.

GUIDE 09

CARBON DIOXIDE (CO$_2$) - Compressed Liquefied and Solid

Potential Hazards

Fire or Explosion

- Non-flammable gas and solid.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- High concentration of gas may cause asphyxiation without warning.
- Contact with liquefied or solidified gas may cause severe frostbite.
- **Note:** Damaged packages containing solid CO_2 as refrigerant, are likely to produce water or frost from condensation of air. Do not touch this liquid as it could be contaminated by the content of the parcel.

Public Safety

- Isolate spill or leak area.
- Keep upwind.
- Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA. • Structural firefighter's protective clothing will provide limited protection.
- Always wear thermal protective clothing when handling cryogenic liquids or solids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 500 m in all directions.

Emergency Response

Fire

- Use extinguishing agent suitable for type of surrounding fire.
- Damaged cylinders should be handled only by specialists.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks

- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- Ventilate the area.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Scoop solid CO_2 into a metal container. Do not seal.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied or solidified gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care.

Potential Hazards

Fire or Explosion

- Do not burn but will support combustion.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- Vapours from liquefied gas are **initially** heavier than air.
- Runoff may create fire or explosion hazard.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- High concentration of gas may cause asphyxiation without warning.
- Some are narcotic in high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating or poisonous gases.

Public Safety

- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep unauthorized personnel away. • Keep upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these gases.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 500 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

- Use extinguishing agent suitable for type of surrounding fire.
- If without risk, move undamaged containing vessels or packages from fire area.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • When impossible, withdraw immediately from hazard area and let burn.
- Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Clothing frozen to the skin should be thawed before being removed.• In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care. • Ensure that medical personnel are aware of identity of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Oxygen does not burn but will strongly support combustion.
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- The product in liquid form may cause an explosion when in contact with many combustible materials (asphalt, hot tires, oil, etc...)
- Vapours from liquefied gas are **initially** heavier than air.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.

Health

- Prolonged inhalation of pure product can cause pulmonary irritation and edema.
- Contact with liquefied gas may cause burns, severe injury and/or frostbite.
- Burning material may produce irritating fumes.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions.
- Keep unauthorized personnel away.
- Keep upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 100 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

- Use extinguishing agent suitable for type of surrounding fire.
- If without risk, move undamaged containing vessels or packages from fire area.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow spilled liquid to evaporate.

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing.
- Remove immediately contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water. • Keep victim warm and quiet.
- Obtain immediate medical care. • Ensure that medical personnel are aware of identity of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Do not burn but will support combustion.
- These are strong oxidizers and will react vigorously or explosively with many materials.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- Some will react violently with air, moist air and/or water.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.
- Ruptured aerosol dispensers may rocket.

Health

- **Poisonous**, may be fatal if inhaled.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Vapours from liquefied gas are **initially** heavier than air and spread along ground.
- Runoff may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these gases.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 800 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

- **Water only**; no dry chemical, CO_2 or Halon®.
- Contain fire and let burn. If fire must be fought, water spray or fog is recommended.
- Do not get water inside containing vessels.
- If without risk, move undamaged containing vessels or packages from fire area.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • Cool containing vessels with flooding quantities of water until well after fire is out. • Do not direct water at source of leak or venting safety devices as icing may occur. • When impossible, withdraw from area and let fire burn. • Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containing vessel so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed. • Ventilate the area.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

Caution: When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult. • Clothing frozen to the skin should be thawed before being removed. • Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet. • Obtain immediate medical care. • Effects of contact or inhalation may be delayed. • Keep victim under observation. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- May form explosive mixtures with air.
- May ignite spontaneously on contact with air.
- May re-ignite after fire is extinguished.
- Vapours from liquefied gas are **initially** heavier than air.
- Containing vessels may explode when heated.
- Ruptured cylinders may rocket.
- DIBORANE reacts explosively with moist air or water to release hydrogen gas, a highly flammable gas, and a poisonous boron derivative.

Health

- **Highly poisonous**: may be fatal if inhaled.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or poisonous gases.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these gases.
- Always wear thermal protective clothing when handling cryogenic liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 1000 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire

- Use dry chemical or CO_2.

Large Fire

- Use flooding quantities of water.
- If without risk, move undamaged containing vessels or packages from fire area.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Extinguish secondary fire.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet. • Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- **HIGHLY FLAMMABLE**: Will be easily ignited by heat, sparks or flames.
- Vapours will form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Some may decompose (**E**) or polymerize (**P**) explosively when **heated** or involved in a fire.
- Many liquids are lighter than water.
- Containing vessels may explode when heated.
- Vapours from runoff may create explosion hazard indoors, outdoors or in sewers.

Health

- Inhalation or contact with substance may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- SCBA and structural firefighter's protective clothing may provide limited protection.
- Fully encapsulating suits should be worn for maximum protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 300 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Caution: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fire

- Use dry chemical, CO_2, water spray or foam.

Large Fire

- Use water spray, fog or alcohol foam.
- Do not use straight streams.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • When impossible, immediately withdraw from hazard area and let burn.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour suppressing foam may be used to control vapours.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- Water spray may be used to knock down vapour clouds.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- May be ignited by heat, sparks or flames.
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Many liquids are lighter than water.
- Some may decompose (**E**) or polymerize (**P**) explosively when **heated** or involved in a fire.
- Containing vessels may explode when heated.
- Vapours from runoff may create explosion hazard indoors, outdoors or in sewers.

Health

- Inhalation or contact with substance may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- SCBA and structural firefighter's protective clothing may provide limited protection.
- Fully encapsulating suits should be worn for maximum protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 100 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 500 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, alcohol foam or water spray.

Large Fire

- Use water spray, fog or alcohol foam.
- Do not use straight streams.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • When impossible, immediately withdraw from hazard area and let burn.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour suppressing foam may be used to control vapours.
- Water spray may be used to knock down vapour clouds.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- **HIGHLY FLAMMABLE**: Will be easily ignited by heat, sparks or flames.
- Vapours will form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Some may decompose (**E**) or polymerize (**P**) explosively when **heated** or involved in a fire.
- Many liquids are lighter than water.
- Containing vessels may explode when heated.
- Vapours from runoff may create explosion hazard indoors, outdoors or in sewers.

Health

- **Poisonous**, may be fatal if inhaled, swallowed or absorbed through skin.
- Inhalation or contact with substance may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing is not effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 300 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Caution: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fire • Use dry chemical, CO_2, alcohol foam or water spray.

Large Fire • Use water spray, fog or alcohol foam. • Do not use straight streams. • If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • When impossible, immediately withdraw from hazard area and let burn.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour suppressing foam may be used to control vapours.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- Water spray may be used to knock down vapour clouds.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- May be ignited by heat, sparks or flames.
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Many liquids are lighter than water.
- Some may decompose (**E**) or polymerize (**P**) explosively when **heated** or involved in a fire.
- Containing vessels may explode when heated.
- Vapours from runoff may create explosion hazard indoors, outdoors or in sewers.

Health

- **Poisonous**, may be fatal if inhaled, swallowed or absorbed through skin.
- Inhalation or contact with substance may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing is **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 300 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 500 m in all directions.

Emergency Response

Fire

Small Fire • Use dry chemical, CO_2, alcohol foam or water spray.

Large Fire

- Use water spray, fog or alcohol foam.
- Do not use straight streams.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • When impossible, immediately withdraw from hazard area and let burn.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour suppressing foam may be used to control vapours.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- Water spray may be used to knock down vapour clouds.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames.
- Vapours will form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Some may decompose (**E**) or polymerize (**P**) explosively when **heated** or involved in a fire.
- Many liquids are lighter than water.
- Containing vessels may explode when heated.
- Vapours from runoff may create explosion hazard indoors, outdoors or in sewers.

Health

- **Poisonous**, may be fatal if inhaled, swallowed or absorbed through skin.
- Contact of vapour or substance may cause severe burns to skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep unauthorized personnel away. • Keep upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing is **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 300 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Caution: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fire • Use dry chemical, CO_2, alcohol foam or water spray.

Large Fire • Use water spray, fog or alcohol foam. • Do not use straight streams. • If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • When impossible, immediately withdraw from hazard area and let burn.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour suppressing foam may be used to control vapours.
- Absorb with earth, sand or other non-combustible material. **(except for Hydrazine)**
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- Water spray may be used to knock down vapour clouds.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device.
- Remove immediately contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- May be ignited by heat, sparks or flames.
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Some may decompose (**E**) or polymerize (**P**) explosively when **heated** or involved in a fire.
- Many liquids are lighter than water.
- Containing vessels may explode when heated.
- Vapours from runoff may create explosion hazard indoors, outdoors or in sewers.

Health

- **Poisonous**, may be fatal if inhaled, swallowed or absorbed through skin.
- Contact of vapour or substance may cause severe burns to skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep unauthorized personnel away. • Keep upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing is **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 500 m in all directions.

Emergency Response

Fire

Small Fire • Use dry chemical, CO_2, alcohol foam or water spray.

Large Fire

- Use water spray, fog or alcohol foam.
- Do not use straight streams.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. • When impossible, immediately withdraw from hazard area and let burn.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapour suppressing foam may be used to control vapours.
- Absorb with earth, sand or other non-combustible material. **(except for Hydrazine)**
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- Water spray may be used to knock down vapour clouds.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device.
- Remove immediately contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- May be ignited by friction, heat, sparks or flames.
- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- Powders, dusts, shavings, borings, turnings or cuttings may explode or burn with explosive violence.
- Vapours may form explosive mixtures with air.
- May burn fiercely.
- May re-ignite after fire is extinguished.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated.
- Runoff may pollute waterways.
- Material may be transported in a molten form.

Health

- May be poisonous if inhaled or absorbed through skin.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Contact with molten substance may cause severe burns to skin and eyes.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing may provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tanker) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.

Large Fire

- Use water spray, fog or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- Cool containing vessels with flooding quantities of water until well after fire is out.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material.
- Obtain advice on use of water as spilled material could be water reactive.
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • Remove immediately contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Removal of solidified molten material from skin requires medical assistance.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.
- Some may decompose explosively when **heated** or involved in a fire.
- Some will decompose explosively, particularly if confined.
- May burn vigorously. Decomposition may be self-accelerating and produce large amounts of gases.
- Vapours or dust may form explosive mixtures with air.
- May re-ignite after fire is extinguished.

Health

- May produce irritating, poisonous and/or corrosive gases.
- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep unauthorized personnel away. • Keep upwind.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use flooding quantities of water.

Fire involving Tanks or Car/Trailer Loads

- BEWARE OF POSSIBLE CONTAINER EXPLOSION
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if without risk.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • Remove immediately contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.
- These materials are particularly sensitive to temperature rises. Above a given "control temperature" they decompose violently and catch fire. The specified "control temperature" must be maintained at all times.
- Some may decompose explosively when **heated** or involved in a fire.
- Self-accelerating decomposition will occur if the specific control temperature is not maintained.
- Some will decompose explosively, particularly if confined.
- May burn vigorously. Decomposition may be self-accelerating and produce large amount of gases.
- Vapours or dust may form explosive mixtures with air.

Health

- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- May produce irritating, poisonous and/or corrosive gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- **DO NOT allow the substance to warm up.**

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

Small Fire
- Use dry chemical, CO_2, water spray or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.
- **DO NOT** move cargo or vehicle if cargo has been exposed to heat.

Large Fire
- Use flooding quantities of water.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

Fire involving Tanks or Car/Trailer Loads
- BEWARE OF POSSIBLE CONTAINER EXPLOSION
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak
- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if without risk.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.

First Aid
- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- Exposure to air or heat will lead to spontaneous combustion
- Burns rapidly, releasing dense, white, irritating fumes.
- May re-ignite after fire is extinguished.
- Containing vessels may explode when heated.

Health

- Fire will produce irritating, corrosive and/or poisonous gases. Vapours may accumulate in confined areas (basement, tanks, hopper/tank cars etc.).
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing is not effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use water spray, fog or regular foam.
- Do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Cover with **WET** earth, sand or other non-combustible material.
- Keep substance wet using water spray.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Extremely flammable material.
- Will ignite spontaneously on contact with air.
- Burns rapidly, releasing dense, white, irritating fumes.
- Fire will produce irritating and poisonous fumes.
- May re-ignite after fire is extinguished if not kept covered with water, wet sand or wet earth.
- Containing vessels may explode when heated.
- Material may be transported in a molten form.
- Runoff may create fire or explosion hazard.

Health

- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Produce poisonous and/or corrosive gases on contact with air.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Always wear thermal protective clothing when handling molten liquids.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 1000 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

Small Fire

- Use water spray, wet sand or wet earth.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Flood fire area with large quantities of water, while knocking down vapours with water fog.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not use straight streams.
- Do not scatter material.

Fire involving Tanks or Car/Trailer loads

- Fight fire from maximum distance or use unmanned hose holders or monitor hoses.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- Use water spray to reduce smoke or divert smoke plume.
- Keep substance wet using water spray.
- Cover with **WET** earth, sand or other non-combustible material.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Keep exposed skin area immersed in water or soaked with a wet cloth until medical attention is obtained.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Removal of solidified molten material from skin requires medical assistance. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Some may decompose explosively when **heated** or involved in a fire.
- May ignite on contact with air or moist air.
- May ignite on contact with water.
- Some react vigorously or explosively on contact with water.
- May produce flammable, poisonous and/or corrosive gases on contact with air or moist air.
- May re-ignite after fire is extinguished.
- Containing vessels may explode when heated.
- Some are transported in a protective medium.
- Runoff may create fire or explosion hazard.

Health

- Fire will produce irritating, corrosive and/or poisonous gases.
- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- Contact with substance may cause severe burns to skin and eyes.
- Some effects may be experienced due to skin absorption.
- Runoff may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER, CO_2 OR FOAM ON MATERIAL ITSELF.**

Small Fire • Use dry chemical, soda ash or lime. • If without risk, move undamaged containing vessels or packages from fire area.

Large Fire • Use **DRY** sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.

Caution: Dithionite (Hydrosulfite) fires may require flooding with water in order to eliminate hazardous reaction since the materials generate their own oxygen. Smothering with **DRY** sand may be ineffective.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels or in contact with substance.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Stop leak if without risk.

Small Spill

- Cover with DRY earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Use clean non-sparking tools to collect the material and place it into loosely covered plastic containers for later disposal.
- Use water spray to reduce vapours or divert vapour cloud drift.
- DO NOT GET WATER on spilled substance or inside containing vessels.
- Prevent entry into waterways, sewers, basements or confined areas.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Produce flammable substances on contact with water.
- May ignite on contact with water or moist air.
- Some react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flames.
- May re-ignite after fire is extinguished.
- Some are transported in highly flammable liquids.
- Containing vessels may explode when heated.
- Runoff may create fire or explosion hazard.

Health

- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- May produce poisonous gases and/or corrosive solutions on contact with water.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing will provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 500 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER OR FOAM.**

Small Fire

- Use dry chemical, soda ash, lime or sand.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use **DRY** sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.

Magnesium Fire

- Use **DRY** sand, graphite powder or Met- L-X® powder.

Lithium Fire

- Use **DRY** sand, graphite powder or Lith-X® powder.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- DO NOT GET WATER on spilled substance or inside containing vessels.

Small Spill

- Cover with **DRY** earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Large Spill

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that medical personnel are aware of identity of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Produce flammable and poisonous substances on contact with water.
- May ignite on contact with water or moist air.
- May be ignited by heat, sparks or flames.
- May re-ignite after fire is extinguished.
- Some react vigorously or explosively on contact with water.
- Some are transported in highly flammable liquids.
- Containing vessels may explode when heated.
- Runoff may create fire or explosion hazard.

Health

- **Highly poisonous**: may be fatal if inhaled.
- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing is not effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 500 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER OR FOAM.**

Small Fire

- Use dry chemical, soda ash, lime or sand.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use **DRY** sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- DO NOT GET WATER on spilled substance or inside containing vessels.

Small Spill

- Cover with **DRY** earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Large Spill

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes.
- Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that medical personnel are aware of identity of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- May ignite combustibles (wood, paper, oil, clothing, etc.)
- React vigorously and/or explosively with water.
- Produce poisonous and/or corrosive substances on contact with water.
- Containing vessels may explode when heated.
- Runoff may create fire or explosion hazard.

Health

- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- Fire will produce irritating, poisonous and/or corrosive gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulating, vapour-protective clothing recommended by the manufacturer or CANUTEC when handling these substances.
- Structural firefighter's protective clothing is not effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1500 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER OR FOAM.**

Small Fire

- Use dry chemical, soda ash or lime.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use **DRY** sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- DO NOT GET WATER on spilled substance or inside containing vessels.

Small Spill

- Cover with **DRY** earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Large Spill

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes.
- Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- These materials will accelerate burning when involved in a fire.
- Some may decompose explosively when **heated** or involved in a fire.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated.
- Runoff may create fire or explosion hazard.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Poisonous fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing will provide limited protection.

EVACUATION

Large spill

- Consider **initial** downwind evacuation for at least 100 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Small Fire

- **Do not** use dry chemicals, CO_2, Halon® or foams. • **Use water only.**
- For massive fire in cargo area, use unmanned hose holders or monitor nozzles; if impossible, withdraw from area and let fire burn.
- If without risk, move undamaged containing vessels or packages from fire area.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.

Large Fire

- Flood fire area with water from a distance.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not get water inside containing vessels: a violent reaction may occur.
- Dike fire control water for later disposal.
- ALWAYS stay away from tank ends.

Spill or Leak

- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Dry Spill

- Using clean non-sparking tools, transfer material into a clean dry plastic container and cover loosely. • Move container from spill area.

Small Liquid Spill

- Use a non-combustible material like vermiculite,sand or earth to soak up the product and place into a container for later disposal.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- These materials will accelerate burning when involved in a fire.
- May explode from heating or contamination.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated.
- Runoff may create fire or explosion hazard.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Poisonous fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing will provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Small Fire

- **Do not** use dry chemicals, CO_2, Halon® or foams. **Use water only.**
- For massive fire in cargo area, use unmanned hose holders or monitor nozzles; if impossible, withdraw from area and let fire burn.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Flood fire area with water from a distance.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Do not get water inside containing vessels: a violent reaction may occur.
- ALWAYS stay away from tank ends.
- Dike fire-control water for later disposal.

Spill or Leak

- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Dry Spill

- Using clean non-sparking tools, transfer material into a clean dry plastic container and cover loosely. • Move the container from the spill area.

Small Liquid Spill

- Use a non-combustible material like vermiculite,sand or earth to soak up the product and place into a container for later disposal.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- These materials will accelerate burning when involved in a fire.
- May explode from heating, shock, friction or contamination.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated.
- Runoff may create fire or explosion hazard.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Poisonous fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing will provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Small Fire

- **Do not** use dry chemicals, CO_2, Halon® or foams.
- Use water only.
- For massive fire in cargo area, use unmanned hose holders or monitor nozzles; if impossible, withdraw from area and let fire burn.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.
- If without risk, move non-damaged containing vessels or packages from fire area.

Large Fire

- Flood fire area with water from a distance.
- Do not get water inside containing vessels: a violent reaction may occur.
- Cool containing vessels with flooding quantities of water until well after fire is out. • When impossible, withdraw immediately from hazard area and let burn.
- Dike fire control water for later disposal.
- ALWAYS stay away from tank ends.

Spill or Leak

- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill

- Flush area with flooding quantities of water.

Large Spill

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST**.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- May explode from heating or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containing vessels may explode when heated.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Runoff may create fire or explosion hazard.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Poisonous fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider **initial** evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- Do not use straight streams.
- If without risk, move undamaged containg vessels or packages from fire area.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.

Large Fire

- Use flooding quantities of water.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- When impossible, withdraw immediately from hazard area and let burn.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material.
- Keep substance wet using water spray. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Use clean non-sparking tools to collect the material and place it into loosely covered plastic containers for later disposal.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

GUIDE 33

ORGANIC PEROXIDES
Heat, Contamination and Friction Sensitive

Potential Hazards

Fire or Explosion

- May explode from heating, shock, friction or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containing vessels may explode when heated.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Runoff may create fire or explosion hazard.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Poisonous fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect.]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- Do not use straight streams. • If without risk, move undamaged containing vessels or packages from fire area.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.

Large Fire

- Use flooding quantities of water.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- When impossible, withdraw immediately from hazard area and let burn.
- Do not use straight streams.
- Always stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material.
- Keep substance wet using water spray.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb with earth, sand or other non-combustible material.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- May explode from heating or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containing vessels may explode when heated.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Runoff may create fire or explosion hazard.

Health

- Contact of vapour or substance with eyes may cause blindness within minutes. **Protect eyes until decontamination is over.**
- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Poisonous fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect.]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- Do not use straight streams.
- If without risk, move undamaged containing vessels or packages from fire area.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.

Large Fire

- Use flooding quantities of water.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- When impossible, withdraw immediately from hazard area and let burn.
- Always stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Keep substance wet using water spray.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.
- Use clean non-sparking tools to collect the material and place it into loosely covered plastic containers for later disposal.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- May explode from heating, shock, friction or contamination.
- These materials are particularly sensitive to temperature rises. Above a given "control temperature" they decompose violently and catch fire. The specified "control temperature" must be maintained at all times.
- May be ignited by heat, sparks or flames.
- May ignite combustibles (wood, paper, oil, clothing, etc.)
- May burn rapidly with flare-burning effect.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated.
- Runoff may create fire or explosion hazard.

Health

- Inhalation, ingestion, or skin contact with material may cause severe injury or death.
- Contact of vapour or substance may cause severe burns to eyes.
- Poisonous fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect.]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- **DO NOT allow the substance to warm up.**
- The specified control temperature of material must be maintained at all times.
- Use liquid nitrogen, dry ice or ice for cooling.
- If none of these can be obtained, evacuate the area immediately.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 1000 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.
- Do not use straight streams.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.

Large Fire

- Use flooding quantities of water.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out.
- When impossible, withdraw immediately from hazard area and let burn.
- **BEWARE OF POSSIBLE CONTAINER EXPLOSION.**
- Always stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Keep substance damp using water spray.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- Use clean non-sparking tools to collect the material and place it into loosely covered plastic containers for later disposal.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • Remove material from skin immediately. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Material itself does not burn but may decompose upon heating to produce corrosive and/or poisonous fumes.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated.
- Runoff may pollute waterways.

Health

- **Highly poisonous**, may be fatal if inhaled, swallowed or absorbed through skin.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Fully encapsulating suits should be worn for maximum protection.
- Structural firefighter's protective clothing is not effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2 or water spray.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use water spray, fog or regular foam.
- Do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas. Cover with plastic sheet to prevent spreading.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- For further assistance, contact your local Poison Control Centre or CANUTEC.
- Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Combustible material: may burn but do not ignite readily.
- Containing vessels may explode when heated.
- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- Runoff may pollute waterways.
- Material may be transported in a molten form.

Health

- **Highly poisonous**, may be fatal if inhaled, swallowed or absorbed through skin.
- Contact with molten substance may cause severe burns to skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Fully encapsulating suits should be worn for maximum protection.
- Structural firefighter's protective clothing is **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2 or water spray.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use water spray, fog or regular foam.
- Do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb with earth, sand or other non-combustible material.
- Use clean non-sparking tools to collect absorbed material and place it into loosely covered plastic or fibreboard containers for later disposal.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • For minor skin contact, avoid spreading material on unaffected skin. • Removal of solidified molten material from skin requires medical assistance.
- For further assistance, contact your local Poison Control Centre or CANUTEC.
- Keep victim warm and quiet. • Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves. • Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Combustible material : may burn but do not ignite readily.
- When heated, vapours may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- Contact with metals may evolve flammable hydrogen gas.
- Containing vessels may explode when heated.
- Runoff may pollute waterways.
- Material may be transported in a molten form.

Health

- Inhalation, ingestion, or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Fully encapsulating suits should be worn for maximum protection.
- Structural firefighter's protective clothing is **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2 or water spray.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use dry chemical, CO_2, alcohol foam or water spray.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • For minor skin contact, avoid spreading material on unaffected skin. • Removal of solidified molten material from skin requires medical assistance.
- For further assistance, contact your local Poison Control Centre or CANUTEC.
- Keep victim warm and quiet.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Material itself does not burn but may decompose upon heating to produce corrosive and/or poisonous fumes.
- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.).
- Contact with metals may evolve flammable hydrogen gas.
- Containing vessels may explode when heated.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Fully encapsulating suits should be worn for maximum protection.
- Structural firefighter's protective clothing is **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, alcohol foam or water spray.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use dry chemical, CO_2, water-spray or fog.

Fire Involving Tanks or Car/Trailer Loads

- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • Stop leak if without risk.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover with **DRY** earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • For minor skin contact, avoid spreading material on unaffected skin.
- For further assistance, contact your local Poison Control Centre or CANUTEC.
- Keep victim warm and quiet.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- HIGHLY FLAMMABLE
- Will be easily ignited by heat, sparks or flames.
- Vapours form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapours may travel to source of ignition and flash back.
- Substance will react with water (some violently) releasing flammable, poisonous or corrosive gases and runoff.
- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- Contact with metals may evolve flammable hydrogen gas.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated or if contaminated with water.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Reaction with water or moist air will release poisonous, corrosive or flammable gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear SCBA and acid-resistant chemical protective clothing.
- Fully encapsulating suits should be worn for maximum protection.
- Structural firefighter's protective clothing is not effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 250 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Small Fire • Use CO_2, dry chemical, dry sand, alcohol foam.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire • Use water spray, fog or alcohol foam.
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not use straight streams.

Fire involving Tanks or Car/Trailer Loads
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area). • All equipment used when handling the product must be grounded.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Stop leak if without risk.
- A vapour suppressing foam may be used to control vapours.
- Use water spray to reduce vapours or divert vapour cloud drift.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill
- Cover with **DRY** earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Use clean non-sparking tools to collect the material and place it into loosely covered plastic containers for later disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Do not use mouth-to-mouth method if victim ingested or inhaled the substance; use the Ho:ger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult. • Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • For minor skin contact, avoid spreading material on unaffected skin.
- For further assistance, contact your local Poison Control Centre or CANUTEC. • Keep victim warm and quiet. • Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves. • Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Combustible material: material will burn but it may take some effort to ignite.
- Substance will react with water (some violently) releasing flammable, poisonous or corrosive gases and runoff.
- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- When heated, vapours may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapours may travel to source of ignition and flash back.
- Fire may produce irritating, corrosive and/or poisonous gases.
- Containing vessels may explode when heated or if contaminated with water.

Health

- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Reaction with water or moist air will release poisonous, corrosive or flammable gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing is **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 150 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Note • Most foams will react with the material and release corrosive/poisonous gases.

Small Fire • Use CO_2, dry chemical, dry sand or alcohol foams.

- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire • Use water spray, fog or alcohol foam.

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Stop leak if without risk.
- A vapour suppressing foam may be used to control vapours.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Do not direct water at spill or source of leak.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill

- Cover with **DRY** earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Use clean non-sparking tools to collect the material and place it into loosely covered plastic containers for later disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult. • Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • For minor skin contact, avoid spreading material on unaffected skin.
- For further assistance, contact your local Poison Control Centre or CANUTEC. • Keep victim warm and quiet. • Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves. • Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Material itself does not burn but may decompose upon heating to produce corrosive and/or poisonous fumes.
- Heat of reaction may be high enough to ignite combustibles.
- Contact with metals may evolve flammable hydrogen gas.
- Containing vessels may explode when heated or if contaminated with water.
- Runoff may pollute waterways.
- Material may be transported in a molten form.

Health

- Fire will produce irritating, corrosive and/or poisonous gases. Vapours may accumulate in confined areas (basement, tanks, hopper/tank cars etc.).
- Substance will react with water (some violently), releasing corrosive and/or poisonous gases.
- Reaction with water may generate much heat which will increase the concentration of fumes in the air.
- Inhalation, ingestion or contact (skin, eyes) with vapours, dusts or substance may cause severe injury, burns, or death.
- Runoff from fire control or dilution water may be corrosive and/or poisonous and pollute waterways.
- Contact with molten substance may cause severe burns to skin and eyes.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing. • Structural firefighter's protective clothing **not** effective for these materials.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 100 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

When material is not involved in fire: do not use water on material itself.

Small Fire • Use CO_2 (except for Barium oxide), dry chemical, dry sand or flooding quantities of water.

- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire • Flood fire area with large quantities of water, while knocking down vapours with water fog. If insufficient water supply: knock down vapours only.

Fire involving Tanks or Car/Trailer Loads

- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Stop leak if without risk.
- A vapour suppressing foam may be used to control vapours.
- Use water spray to reduce vapours or divert vapour cloud drift.
- DO NOT GET WATER INSIDE CONTAINING VESSELS.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill

- Cover with **DRY** earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Use clean non-sparking tools to collect the material and place it into loosely covered plastic containers for later disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • **Do not use mouth-to-mouth method** if victim ingested or inhaled the substance; **use** the Holger Nielsen method (back pressure-armlift) or proper respiratory medical device. • Administer oxygen if breathing is difficult. • Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • For minor skin contact, avoid spreading material on unaffected skin. • Removal of solidified molten material from skin requires medical assistance.
- For further assistance, contact your local Poison Control Centre or CANUTEC. • Keep victim warm and quiet. • Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves. • Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Some are transported in flammable liquids.

Health

- Inhalation or contact with substance may cause infection, disease, or death.
- Runoff from fire control or dilution water may pollute waterways.

Note: Damaged packages containing solid CO_2, as refrigerant, are likely to produce water or frost from condensation of air. Do not touch this liquid as it could be contaminated by the content of the parcel.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 10 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Obtain identity of substance(s) involved.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing will only provide limited protection.

Emergency Response

Fire

Small Fire
- Use dry chemical, soda ash or lime.

Large Fire
- Use extinguishing agent suitable for type of surrounding fire.

Spill or Leak

- **Do not** touch or walk through spilled material.
- **Do not** touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Absorb with earth, sand or other non-combustible material.
- Cover damaged package or spilled material with cloth wetted with bleach or other disinfectant and add additional bleach once covered.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to a safe isolated area.
- **CAUTION:** Victim may be a source of contamination.
- **Remove immediately and isolate contaminated clothing and shoes.** • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- For further assistance, contact your local Poison Control Centre or CANUTEC.
- Shower and wash with soap and water.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Some may burn but do not ignite readily.
- Fire may produce radioactive and poisonous gases and dusts.
- Radioactivity does not affect flammability or any other properties of the materials.

Health

- Degree of radiation hazard will vary from low to high, depending on the type and quantity of radioactive material and type of packaging.
- Some radioactive materials cannot be detected by commonly available instruments.
- Inhalation of gases or airborne particles, ingestion or contact with radioactive material will result in contamination.
- Some products may be toxic and/or corrosive to skin.
- Effects of contact or inhalation may be delayed.
- Prolonged exposure may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 50-100 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Isolate any uninjured person and equipment suspected of being contaminated, and delay any clean-up procedures until instructed by Radiation Authorities. Contact CANUTEC for assistance.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing is **not** effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.
- Alternate persons for entry, if possible.

EVACUATION

- When a large quantity of this material is involved in a major fire, an **initial** evacuation should be set up for at least 800 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER OR FOAM ON MATERIAL ITSELF.**

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use water spray, fog or foam.
- Do not scatter material.
- Dike fire-control water for later disposal.
- **Do not** move damaged containing vessels or packages.
- Cool containing vessels or packages with flooding quantities of water until well after fire is out.

Spill or Leak

- Do not touch or walk through spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to a safe isolated area. • Wrap victim in sheet or blanket before transporting.
- **CAUTION:** Victim may be a source of contamination.
- **Remove immediately and isolate contaminated clothing and shoes.** • Isolate any material used for victim care (sheets, gloves...) for later disposal according to instructions of radioactive material authorities. • Shower and wash with soap and water.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

GUIDE 45	RADIOACTIVE MATERIALS Low Level of Radiation

Potential Hazards

Fire or Explosion

- Some may burn but do not ignite readily.
- Fire may produce radioactive and poisonous gases and dusts.
- Radioactivity does not affect flammability or any other properties of the materials.

Health

- Degree of radiation hazard will vary from low to moderate, depending on the type and quantity of radioactive material.
- Inhalation of vapours or contact with tritiated water may result in contamination.
- Effects of contact or inhalation may be delayed.
- Runoff from fire control or dilution water may pollute waterways.
- Some radioactive materials cannot be detected by commonly available instruments.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Isolate any uninjured person and equipment suspected of being contaminated, and delay any clean-up procedures until instructed by Radiation Authorities. Contact CANUTEC for assistance.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing is not effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.

EVACUATION

- When a large quantity of this material is involved in a major fire, an **initial** evacuation should be set up for at least 800 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.

Large Fire

- Use water spray, fog or regular foam.
- Do not scatter material.
- **Do not** move damaged containing vessels or packages.
- If without risk, move undamaged containing vessels or packages from fire area.
- Cool containing vessels or packages with flooding quantities of water until well after fire is out.

Spill or Leak

- Do not direct water at spill or source of leak as this will scatter the material.
- Do not touch or walk through spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to a safe isolated area. • Wrap victim in sheet or blanket before transporting.
- **CAUTION:** Victim may be a source of contamination. • Isolate any material used for victim care (sheets, gloves...) for later disposal according to instructions of radioactive material authorities. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- **Remove immediately and isolate contaminated clothing and shoes.** • Shower and wash with soap and water.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- May ignite combustibles (wood, paper, oil, clothing, etc.)
- These materials will accelerate burning when involved in a fire.
- Fire may produce radioactive and poisonous gases and dusts.
- Radioactivity does not affect flammability or any other properties of the materials.
- Runoff may create fire or explosion hazard.

Health

- Contact with substance may cause severe burns to skin and eyes.
- Inhalation of dust, ingestion, or skin contact with material may cause severe injury or death.
- Degree of radiation hazard will vary from low to moderate, depending on the type and quantity of radioactive material.
- Effects of contact or inhalation may be delayed.
- Some radioactive materials cannot be detected by commonly available instruments.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Isolate any uninjured person and equipment suspected of being contaminated, and delay any clean-up procedures until instructed by Radiation Authorities. Contact CANUTEC for assistance.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing is **not** effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.

EVACUATION

- When a large quantity of this material is involved in a major fire, an **initial** evacuation should be set up for at least 800 m in all directions.

Emergency Response

Fire

Small Fire

- Do not use dry chemicals, CO_2, Halon® or foams.
- Use only water.
- If without risk, move undamaged containing vessels or packages from fire area.
- **Do not** move damaged containing vessels or packages.

Large Fire

- Flood fire area with water from a distance.
- Cool containing vessels with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Dike fire-control water for later disposal.

Spill or Leak

- Do not touch or walk through spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to a safe isolated area. • Wrap victim in sheet or blanket before transporting.
- **CAUTION:** Victim may be a source of contamination.
- Isolate any material used for victim care (sheets, gloves...) for later disposal according to instructions of radioactive material authorities.
- Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- **Remove immediately and isolate contaminated clothing and shoes.** • Shower and wash with soap and water.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

GUIDE 47

RADIOACTIVE MATERIALS
Spontaneously Combustible (Pyrophoric)

Potential Hazards

Fire or Explosion

- May ignite spontaneously when exposed to air.
- Extremely flammable material.
- May burn rapidly with flare-burning effect.
- May re-ignite after fire is extinguished.
- Fire may produce radioactive and poisonous gases and dusts.
- Containing vessels may explode when heated.
- Radioactivity does not affect flammability or any other properties of the materials.

Health

- Low level radioactive material, degree of radiation hazard to personnel is low.
- Some radioactive materials cannot be detected by commonly available instruments.
- Inhalation of dust or airborne particles, ingestion or contact with radioactive material will result in contamination.
- Effects of contact or inhalation may be delayed.
- Runoff from fire control or dilution water may pollute waterways.
- **Uranium metal** is highly poisonous.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Isolate any uninjured person and equipment suspected of being contaminated, and delay any clean-up procedures until instructed by Radiation Authorities. Contact CANUTEC for assistance.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing is **not** effective for these materials.
- Limit entry to shortest possible time.
- Alternate persons for entry, if possible.
- Maximize use of shielding and distance between material and personnel.

EVACUATION

- When a large quantity of this material is involved in a major fire, an **initial** evacuation should be set up for at least 800 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER OR FOAM.**

Small Fire

- Use dry chemical, **DRY** sand or calcium/magnesium fluoride.
- If without risk, move undamaged containing vessels or packages from fire area.
- **Do not** move damaged containing vessels or packages.

Large Fire

- Cool containing vessels or packages with flooding quantities of water until well after fire is out.
- Dike fire-control water for later disposal.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to a safe isolated area. • Wrap victim in sheet or blanket before transporting.
- **CAUTION:** Victim may be a source of contamination.
- Isolate any material used for victim care (sheets, gloves...) for later disposal according to instructions of radioactive material authorities.
- Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult. • Remove immediately contaminated clothing and shoes.
- Shower and wash with soap and water.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

GUIDE 48

RADIOACTIVE MATERIAL
Uranium Hexafluoride (UF_6) (Water Reactive)

Potential Hazards

Fire or Explosion

- Material does not burn.
- Containing vessels may explode when heated.
- Reacts violently with water to produce poisonous and corrosive hydrogen fluoride gas.
- Radioactivity does not affect flammability or any other properties of the materials.

Health

- Low level radioactive material, degree of radiation hazard to personnel is low.
- Some radioactive materials cannot be detected by commonly available instruments.
- Effects of contact or inhalation may be delayed.
- Material reacts violently with water and water vapour in air to form a white cloud of highly corrosive and poisonous hydrogen fluoride gas, and an extremely irritating residue.
- Prolonged exposure may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- **IMMEDIATELY CONTACT CANUTEC [613-996-6666, collect]**
- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.
- Isolate any uninjured person and equipment suspected of being contaminated, and delay any clean-up procedures until instructed by Radiation Authorities. Contact CANUTEC for assistance.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing is not effective for these materials.
- Limit entry to shortest possible time.
- Maximize use of shielding and distance between material and personnel.
- Alternate persons for entry, if possible.

EVACUATION

- When a large quantity of this material is involved in a major fire, and water has to be used, an **initial** evacuation should be set up for at least 800 m in all directions.

Emergency Response

Fire

- **DO NOT USE WATER OR FOAM ON MATERIAL ITSELF.**

Small Fire

- Use dry chemical or CO_2.
- If without risk, move undamaged containing vessels or packages from fire area.
- **Do not** move damaged containing vessels or packages.

Large Fire

- Cool containing vessels or packages with flooding quantities of water until well after fire is out. • Do not get water inside containing vessels.
- Dike fire-control water for later disposal.
- ALWAYS stay away from tank ends.

Spill or Leak

- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Use pressurized CO_2 to blanket spilled material when confined.
- Use pressurized CO_2 or solid carbon dioxide (dry ice), to freeze leak at source.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

First Aid

- Remove victim to a safe isolated area. • Wrap victim in sheet or blanket before transporting.
- **CAUTION:** Victim may be a source of contamination.
- Isolate any material used for victim care (sheets, gloves...) for later disposal according to instructions of radioactive material authorities.
- Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- **Remove immediately and isolate contaminated clothing and shoes.**
- Shower and wash with soap and water.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Potential Hazards

Fire or Explosion

- Some may burn but do not ignite readily.
- Containing vessels may explode when heated.
- Runoff may pollute waterways.

Health

- Inhalation or contact with substance may be harmful.
- Inhalation of Asbestos dust may have a damaging effect on the lungs.
- Fire may produce irritating, corrosive and/or poisonous fumes.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 10 m in all directions. • Keep upwind. • Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- SCBA and structural firefighter's protective clothing may provide limited protection.

EVACUATION

- When any large container (including rail and road tankers) is involved in a spill or fire, consider **initial** evacuation for 100 m in all directions.

Emergency Response

Fire

Small Fire
- Use dry chemical, CO_2, water spray or regular foam.

Large Fire
- Use water spray, fog or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire Involving Tanks
- Cool containing vessels with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak
- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Use water spray to reduce vapours or divert vapour cloud drift.
- Prevent dust cloud.
- Avoid inhalation of asbestos dust.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.

First Aid
- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Material itself does not burn but may produce corrosive and/or poisonous fumes upon heating.
- Runoff may pollute waterways.

Health

- Inhalation of vapours or contact with substance will result in contamination and potential harmful effects.
- Fire will produce irritating, corrosive and/or poisonous gases.

Public Safety

- Spill or leak area should be isolated immediately for at least 10 m in all directions. • Keep upwind. • Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing will provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 100 m.

Fire

- When any large container is involved in a fire, consider **initial** evacuation for 500 m in all directions.

Emergency Response

Fire

- Use extinguishing agent suitable for type of surrounding fire.
- Material itself does not burn or burns with extreme difficulty.
- **Do not** direct water at the heated metal.
- Runoff may pollute waterways.

Spill or Leak

- Do not touch or walk through spilled material.
- Do not touch damaged containing vessels, packages or spilled material unless wearing appropriate protective clothing.
- Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Do not use steel or aluminium tools or equipment.
- Cover with earth, sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. • For mercury, use a mercury spill kit.
- Mercury spill areas may be subsequently treated with calcium sulphide or with sodium thiosulphate wash to neutralize any residual mercury.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately and isolate contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

Potential Hazards

Fire or Explosion

- Combustible material: material will burn but it may take some effort to ignite.
- Fire will produce irritating and poisonous fumes.

Health

- Inhalation or contact with substance may be harmful.
- Fire will produce irritating and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 15-25 m in all directions. • Keep upwind. • Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear SCBA and chemical protective clothing.
- Structural firefighter's protective clothing will provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 50 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

Emergency Response

Fire

Small Fire

- Use dry chemical, CO_2, water spray or regular foam.
- If without risk, move undamaged containing vessels or packages from fire area.

Large Fire

- Use water spray, fog or regular foam.
- Cool containing vessels with flooding quantities of water until well after fire is out.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Dike fire-control water for later disposal.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material. • Stop leak if without risk.

Small Spill

- Absorb with sand or other non-combustible material and transfer to container.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately and isolate contaminated clothing and shoes.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. • Keep victim warm and quiet.
- Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

GUIDE 52

METALS - Powders, dusts, shavings, borings, turnings or cuttings

Potential Hazards

Fire or Explosion

- Some may decompose **(E)** or polymerize **(P)** explosively when **heated** or involved in a fire.
- May explode from heating, shock, friction or contamination.
- May react vigorously or explosively on contact with water.
- Some may decompose explosively when **heated** or involved in a fire.
- May be ignited by friction, heat, sparks or flames.
- Powders, dusts, shavings, borings, turnings or cuttings will burn with intense heat and may react explosively with water.
- Dusts or fumes may form explosive mixtures in air.
- Containing vessels may explode when heated.
- May re-ignite after fire is extinguished.

Health

- Oxides from metallic fires are a severe health hazard.
- Inhalation or contact with vapour, substance, or decomposition products may cause severe injury or death.
- Fire will produce irritating, corrosive and/or poisonous gases.
- Runoff from fire control or dilution water may pollute waterways.

Public Safety

- Spill or leak area should be isolated immediately for at least 25-50 m in all directions. • Keep upwind. • Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear SCBA and structural firefighter's protective clothing will provide limited protection.

EVACUATION

Large Spill

- Consider **initial** downwind evacuation for at least 50 m.

Fire

- When any large container (including rail and road tankers) is involved in a fire, consider **initial** evacuation for 800 m in all directions.

GUIDE 52

METALS
Powders, dusts, shavings, borings, turnings or cuttings

Emergency Response

Fire

- **DO NOT USE WATER, FOAM OR CO_2.**
- Dousing metallic fire with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment(i.e. building, cargo hold etc...).
- Use **DRY** sand, graphite powder, dry sodium chloride based extinguishers, G-1® or Met-L-X® powder. • Confining and smothering metal fires is preferable rather than applying water.
- If without risk, move undamaged containing vessels or packages from fire area.

Fire involving Tanks or Car/Trailer Loads

- If impossible to extinguish, protect surroundings and allow fire to burn itself out.

Spill or Leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame in immediate area).
- Do not touch or walk through spilled material. • Stop leak if without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Contact CANUTEC for assistance on disposal.

First Aid

- Remove victim to fresh air. • Apply artificial respiration if victim is not breathing. • Administer oxygen if breathing is difficult.
- Remove immediately contaminated clothing and shoes. • In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet.
- Obtain immediate medical care. • Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

GLOSSARY

Aerosol	Liquid/gaseous contents normally discharged through a valve system from pressurized dispensers.
"Alcohol Foam"	Alcohol resistant foam; this foam is also resistant to other "Polar" chemicals such as ketones and esters which may break down other types of foam.
Alcohol resistant foam	See "Alcohol foam".
Ambient	Surrounding.
Bunker gear	See Structural Firefighter's Protective Clothing.
Burn	Refers to either a chemical or thermal burn, the former may be caused by corrosive substances and the latter by cryogenic liquids or hot molten substances.
Chemical Protective Clothing	A single or multi-piece garment constructed of chemical-protective clothing materials designed and configured to protect the wearer's torso, head, arms, legs, hands, and feet. It covers the wearer's head, hands, and feet with attached or detachable hoods, gloves, and boots. It completely encloses the wearer by itself or in combination with the wearer's respiratory equipment, hood, gloves, and boots. (NFPA 472) (See "Protective Clothing")
CO_2	Carbon dioxide gas.
Cold Zone	This area contains the command post and such other support functions as are deemed necessary to control the incident. This is also referred to as the clean zone or support zone in other documents. (NFPA 472)
Combustible liquid	A liquid having a flash point greater than 61°C (141.8°F) For the purposes of this Guide the temperature range considered is from 61°C to 100°C.
Compatibility group	Compatibility group identifies the kinds of explosive substances and articles that are deemed to be compatible. Goods of class 1 are considered to be "compatible" if they can be transported together without significantly increasing either the probability of an accident or, for a given quantity, the magnitude of the effects of such an accident.
Containing vessel	Receptacle enclosing dangerous goods including aerosol dispensers, bottles, drums, tanks, etc.
Control Zones	The designation of areas at dangerous goods incidents based upon safety and the degree of hazard. Many terms are used to describe these control zones, however for the purposes of this guide, these zones shall be defined as the hot, warm, and cold zones. (NFPA 472)

Cryogenic liquid	Extremely low temperature liquefied gas. (Below -150°C)
Decomposition Products	The products of a chemical or thermal break-down of a substance.
Decontamination	The physical and/or chemical process of reducing and preventing the spread of contamination from persons and equipment used at a dangerous goods incident. (NFPA 472). Decontamination methods are dependant on the chemical characteristics of the dangerous goods involved therefore assistance should be sought from the chemical manufacturer, CANUTEC or by consulting the "Guidelines for Decontamination of Fire Fighters and their Equipment Following Hazardous Materials Incidents". This document is available from the Canadian Association of Fire Chiefs, 2425 Don Reid Drive, Unit 1, Ottawa, Ontario, Canada, K1H 1A4; Telephone: 1-800-668-2955.
Dry chemical	A preparation designed for fighting fires involving flammable liquids, pyrophoric substances and electrical equipment. Common types contain sodium bicarbonate or potassium bicarbonate.
E	Substance which may behave explosively under high temperature conditions. These substances may decompose very violently under heat conditions.
Edema	An accumulation of an excessive amount of watery fluid in cells and tissues. Pulmonary edema is an excessive buildup of water in the lungs, for instance after inhalation of a corrosive gas.
En Masse explosion	See "Mass explosion".
Flammable liquid	A liquid having a flash point up to 61°C. For the purposes of this Guide a liquid with a flash point below 23°C is considered a highly flammable liquid.
Flash Point	The lowest temperature at which a liquid or solid gives off vapour in such a concentration that when the vapour combines with air near the surface of the liquid or solid, a flammable mixture is formed. Hence, the lower the flash point, the more flammable is the product. (TDG Regulations)
Hazmat foams	See "Vapour Suppressing Foams".
Highly flammable liquid	See "Flammable liquid".

High Temperature Protective Clothing	Protective clothing designed to protect the wearer for short term high temperature exposures. This type of clothing is usually of limited use in dealing with chemical commodities. (NFPA 472) (See "Thermal Protective Clothing")
Hot Zone	Area immediately surrounding a dangerous goods incident which extends far enough to prevent adverse effects from dangerous goods releases to personnel outside the zone. This zone is also referred to as exclusion zone or restricted zone in other documents. (NFPA 472)
Immiscible	In the context of this book, means does not mix readily with water.
Ignition source	Includes heat, sparks, flames, static electricity and friction. Ignition sources should always be eliminated.
LD50	The quantity of a substance necessary to kill 50% of exposed animals in laboratory tests within a specified time. A liquid with an oral-LD50 less than 500 mg/kg is considered to be toxic under Transport of Dangerous Goods Regulations.
Lime	Calcium oxide (also known as quicklime) usually used for the neutralization of acid spills or as an extinguishant.
Liquid Splash Protective Clothing	Clothing that protects the wearer against chemical liquid splashes but not against chemical vapours or gases. (Considered Level "B" Chemical protection) (NFPA 472)
m	Metre(s). (Approximately 1 yard)
Marine pollutant	Substances, articles or materials which might, if released into the environment, cause serious environmental damage as prescribed under the International Marine Dangerous Goods Code (IMDG).
Mass explosion	A mass explosion which affects almost the entire load virtually instantaneously.
Medical care	Examination and/or treatment of victims by a medical practitioner or other qualified person such as a paramedic.
Miscible	In the context of this book, means mixes readily with water.
NFPA	National Fire Protection Association.
n.o.s.	not otherwise specified.
Oxidizer	A chemical which supplies its own oxygen and which helps other combustible material burn more readily.

P	Substance which may polymerize violently under high temperature conditions or contamination with other products. This polymerization will produce heat and high pressure buildup in containing vessels. Vessels may explode due to temperature and pressure rise.
Personal Protective Clothing	The equipment provided to shield or isolate a person from the chemical, physical, and thermal hazards that may be encountered at a dangerous goods incident. Personal protective equipment includes both personal protective clothing and respiratory protection. Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, head, body, and hearing. (NFPA 472) (See "Protective Clothing")
pH	pH is a value which represents the acidity or alkalinity of a solution. Pure water has a pH of 7. A value below seven indicates an acid solution with a pH of 1 being extremely acidic. pH above seven indicates an alkaline solution with a pH of 14 being extremely alkaline. Acids and alkalies are commonly referred to as corrosive products.
PIN	Product Identification Number.
Protective Clothing	Equipment designed to protect the wearer from heat and/or dangerous goods contacting the skin or eyes. Protective clothing is divided into four types: (NFPA 472) i) structural fire fighting protective clothing; ii) liquid splash protective clothing; iii) vapour protective clothing; and iv) high temperature protective clothing. (See also "Thermal Protective Clothing")
Protective medium	A medium which protects the substance in question from reaction with air and/or moisture; for example, flammable solvent oil, inert gas, etc.
Pyrophoric	A substance which spontaneously and immediately ignites on exposure to air (or oxygen).
Radioactivity	The property of some substances to emit invisible and potentially harmful radiation.
SCBA	A Self Contained Breathing Apparatus which includes positive pressure full-face piece, air tank, connecting hose and other fittings.

Shipping Document	Refers to bill of lading, cargo manifest, train consist, shipping order, waybill, etc. which normally contains the proper shipping name, PIN and class of a product and may be accompanied by other useful documents such as an emergency response form or waste manifest.
Soda Ash	Powdered sodium carbonate usually used for neutralization of acid spills or as an extinguishant.
Straight (solid) Stream	Is a method to apply or distribute water from the end of a hose. The water is delivered under pressure for penetration. In an efficient straight (solid) stream, approximately 90% of the water passes through an imaginary circle15 inches in diameter at the breaking point. Hose (solid or straight) streams are frequently used to keep tanks and other equipment exposed by flammable liquid fires cool, or for washing burning spills away from danger points. However, straight streams will cause a spill fire to spread if improperly used and will serve only to spread a fire when directed into open containers of flammable and combustible liquids.
Structural Firefighter's Protective Clothing	This category of clothing, often called turnout or bunker gear, means the protective clothing normally worn by firefighters during structural firefighting operations. It includes a helmet, coat, pants, boots, gloves, and a hood to cover parts of the head not protected by the helmet and facepiece. Structural firefighters' protective clothing provides limited protection from heat but may not provide adequate protection from the harmful vapours or liquids that are encountered during dangerous goods incidents. (NFPA 472)
TDG	Transport of Dangerous Goods Directorate, Transport Canada.
Thermal Protective Clothing	This type of clothing includes both low (cryogenic liquid protection) and high temperature protective clothing.
Turnout gear	See "Structural Firefighter's Protective Clothing".
Vapour Density	This is the weight of a volume of pure vapour or gas (with no air present) compared to the weight of an equal volume of dry air at the same temperature and pressure. A vapour density figure less than 1 "one" indicates that the vapour is lighter than air and will tend to rise. A figure greater than 1 indicates that the vapour is heavier than air and may travel along the ground.

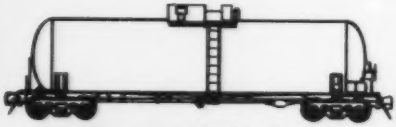
Vapour Pressure	The pressure at which a liquid and its vapour are in equilibrium at a given temperature. Liquids with high vapour pressures evaporate quickly. For example; water at 10°C has a vapour pressure of 9.21 mm of Hg and at 25°C a vapour pressure of 23.77 mm Hg. (1 atmosphere = 760 mm Hg = 101.325 kPa)
Vapour Protective Clothing	Clothing that protects the wearer against chemical vapours and gases. (Considered as Level "A" Chemical Clothing protection) (NFPA 472) (See "Protective Clothing")
Vapour Suppressing Foams	These foams are designed to produce stable blankets of vapours of hazardous materials/dangerous goods to control emissions. They can be used for Acid, Alkaline and Organic products.
Viscosity	The viscosity of a liquid is a measure of its resistance to flow or internal friction. This property is important because it indicates how fast a chemical will leak out through holes in containers or tanks.
Warm Zone	The area where personnel and equipment decontamination and hot zone support takes place. it includes control points for the access corridor and thus assists in reducing the spread of contamination. This is also referred to as the decontamination, contamination reduction, or limited access zone in other documents. (NFPA 472)

Water spray (fog)	Is a method or way to apply or distribute water. The water is finely divided to provide for high heat absorption. Water spray patterns can range from about 10 to 90 degrees. Water spray streams can be used to extinguish or control the burning of a fire or to provide exposure protection for personnel, equipment, buildings, etc. **(This method can be used to absorb vapours, knock-down vapours or disperse vapours. Direct a water spray (fog), rather than a straight (solid) stream, into the vapour cloud to accomplish either of the above.)** Water spray is particularly effective on fires of flammable liquids and volatile solids having flash points above 37.8°C (100°F). Regardless of the above, water spray can be used successfully on low flash point liquids. The effectiveness depends particularly on the method of application. With proper nozzles, even gasoline spill fires of some types have been extinguished when coordinated hose lines were used to sweep the flames off the surface of the liquid. Furthermore, water spray carefully applied has frequently been used with success in extinguishing fires involving flammable liquids with high flash points (or any viscous liquids) by causing the frothing to occur only on the surface, and this foaming action blankets and extinguishes the fire.

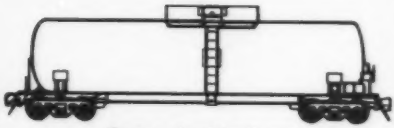
Rail Car Identification Chart*

Box car
Mixed cargo
GUIDE 01

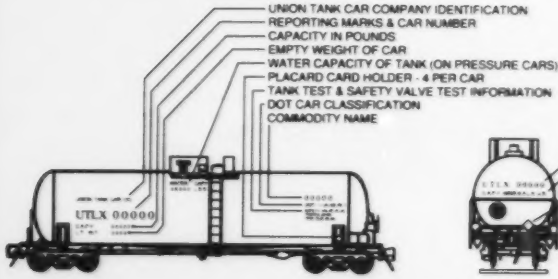
Hopper car
Dry bulk
GUIDE 20



Non-pressurized tank car
Liquids
GUIDE 18



Pressurized tank car
Compressed liquefied gases
GUIDES 05 and 12


UNION TANK CAR COMPANY IDENTIFICATION
REPORTING MARKS & CAR NUMBER
CAPACITY IN POUNDS
EMPTY WEIGHT OF CAR
WATER CAPACITY OF TANK (ON PRESSURE CARS)
PLACARD CARD HOLDER - 4 PER CAR
TANK TEST & SAFETY VALVE TEST INFORMATION
DOT CAR CLASSIFICATION
COMMODITY NAME
UTLX 00000
REPORTING MARKS & CAR NUMBER
CAPACITY IN GALLONS
PLACARD CARD HOLDER - 4 PER CAR

Tank car

CAUTION: Emergency response personnel must be aware that rail tank cars vary widely in construction, fittings and purpose. Tank cars could transport products that may be solids, liquids or gases. The products may be under pressure. It is essential that products be identified by consulting shipping documents, train consist or emergency response forms or contacting dispatch centres before emergency response is initiated.

The information stenciled on the sides or ends of tank cars, as illustrated above, may be used to identify the product utilizing:

a. the commodity name shown; or

b. the other information shown, especially reporting marks and car number which, when supplied to a dispatch centre, will facilitate the identification of the product.

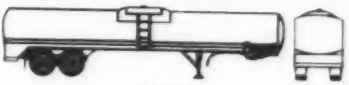
c. Dispatch Centres can be contacted through CANUTEC at all times.

* **The recommended guides should be considered as last resort if product cannot be identified by any other means.**

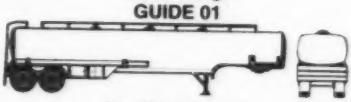
For general information, call CANUTEC (613) 992-4624

Road Trailer Identification Chart*

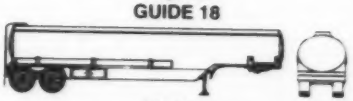
Mixed cargo
GUIDE 01



Liquids
GUIDE 18



Liquids mixture
GUIDE 18



Liquids
GUIDE 18

Molten substances
GUIDES 24 and 38

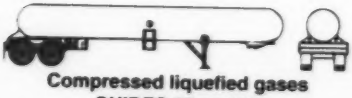
Liquids
GUIDE 18

Liquid/Dry mixtures
GUIDE 18

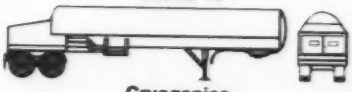
Liquids
GUIDE 18

Dry bulk
GUIDE 20

Corrosives
GUIDE 40



Compressed liquefied gases
GUIDES 05 and 12



Cryogenics
GUIDE 05

Compressed gases tube trailer
GUIDES 05 and 12

CAUTION: This chart depicts only the most general shapes of road trailers. Emergency response personnel must be aware that there are many variations of road trailers, not illustrated above, that are used for shipping chemical products. The suggested guides are for the most hazardous products that may be transported in these trailer types.

*** The recommended guides should be considered as last resort if product cannot be identified by any other means.**

For assistance call **CANUTEC (613) 996-6666** collect